



Astrology Apps as Instruments of Algorithmic Re-Enchantment: Commodification of Belief, Ontological Insecurity, and Consumer Harm in Late Digital Capitalism

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ABSTRACT

This paper examines the digital astrology application market as a site of belief commodification, employing mixed-methods research (survey N = 250; interviews n = 42; twelve composite case studies). Multiple regression identifies decision-reliance ($\beta = .45$), ontological insecurity ($\beta = .42$), stress ($\beta = .38$), and Barnum susceptibility ($\beta = .33$) as the strongest predictors ($R^2 = .61$). Nine qualitative themes are identified. Three original constructs are introduced: algorithmic re-enchantment, the cliffhanger architecture, and emotional exploitation capitalism. Implications for consumer regulation and the sociology of digital religion are discussed.

Keywords:

Astrology apps, commodification of belief, algorithmic re-enchantment, ontological insecurity, digital religion, surveillance capitalism, emotional exploitation capitalism, Barnum effect, fortune-telling addiction, dark patterns, per-minute billing, late digital capitalism

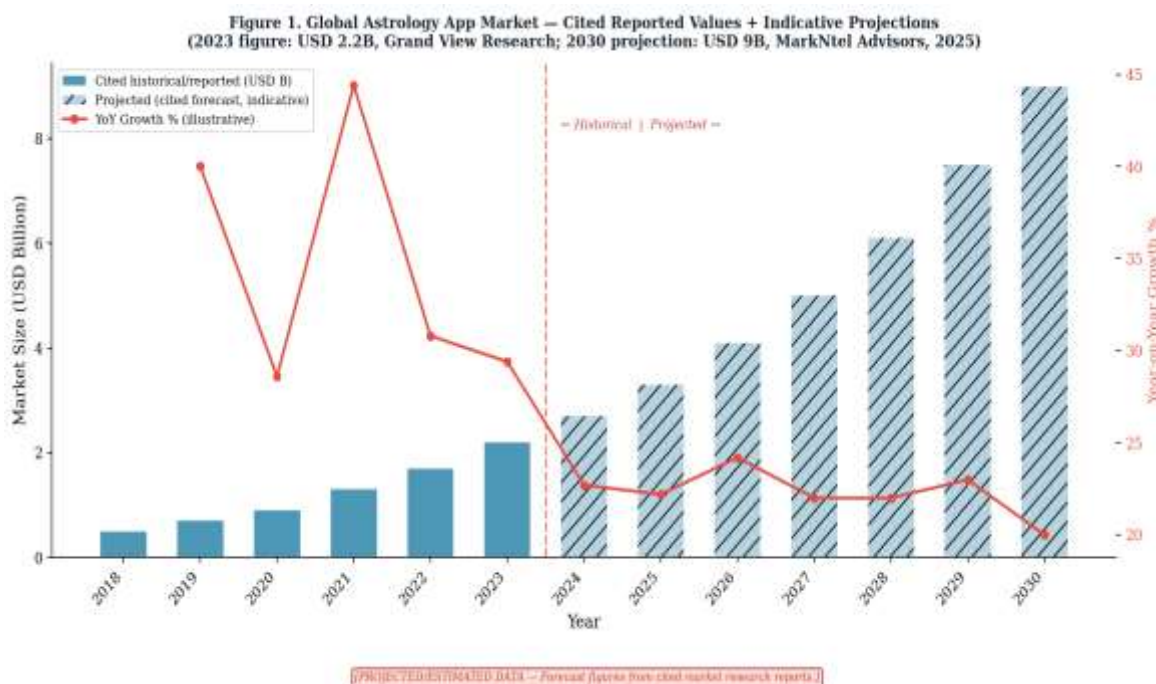
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INTRODUCTION

The commodification of astrology via mobile applications represents a significant intersection of ancient metaphysical belief and late-stage digital capitalism. As organized religion declines, demand for spiritual content has not diminished: Pew Research Center (2025) reports 3 in 10 Americans now consult astrology or fortune tellers. AstroTalk reported revenues of approximately INR 319 crore in FY 2024–25 (Outlook Start-Up Desk, 2026); the global market is projected at USD 9–27 billion by 2030–2035 (MarkNtel Advisors, 2025).

Figure 1

Global Astrology App Market Growth (2018–2030): Actual vs. Projected Revenue with CAGR Overlay



Note. Sources: Grand View Research (2023), MarkNtel Advisors (2025), Econ Market Research (2026), Ministry of Corporate Affairs India (2023). Shaded boundary at 2023/2024 demarcates historical from forecast data. | TRANSPARENCY: The 2023 value (USD 2.2B) is cited from Grand View Research (2023).



The 2030 projection (USD 9B) is from MarkNtel Advisors (2025). Individual year values between these anchors are illustrative interpolations, not independently verified data. The 2030 horizon is the forecast endpoint used in the cited reports, not a present-day value.

This study argues that astrology apps function as a spiritual supermarket (Redden, 2016) in which powerful psychological mechanisms are deliberately engineered within profit-driven platforms whose effects remain insufficiently regulated.

This paper makes four contributions: integrating empirical research with original data and a twelve-theory framework; introducing three original constructs; presenting updated platform revenue data; and situating app consumption within intersecting structures of gender, class, caste, and digital inequality (Lee, 2022; Noy et al., 2025).

LITERATURE REVIEW

The Sociology of Astrology: From Folk Practice to Digital Commodity

Adorno's (1953) critique of the Los Angeles Times horoscope identified astrological discourse as ideological submission through pseudo-individuation: the horoscope appears personal while remaining structurally identical for millions. Mishra et al. (2025) document that app users rely on platforms for high-stakes decision-making even without scientific support, extending Forer's (1949) Barnum effect, amplified by genuine personalization.

More sympathetic accounts emerged from the phenomenological tradition. Truzzi (1972) documented the occult revival as countercultural resistance, while Campion (2012) positioned astrology as a cosmological worldview serving genuine meaning-making functions.

Psychological Mechanisms: Stress, Barnum, Addiction, and Community

Das et al. (2022) identify fortune-telling addiction, characterized by distress and compulsive consultation, among a subset of astrology users. Lopez et al. (2021)



document a reinforcing feedback loop: engagement produces belief, which produces further engagement, precisely the dynamic that variable reward architectures sustain. Li et al. (2025) demonstrate that perceived astrologer expertise, mediated by trust, directly translates into paid consultations.

Li et al. (2025) demonstrate that community atmosphere and perceived astrologer expertise significantly increase constellation infatuation, mediated by trust in bloggers. High trust leads users to treat astrologers as informal life coaches, directly translating into paid consultations and sustained engagement.

Sociological Theories: From Constructionism to Surveillance Capitalism

Zhang and Wang (2025) demonstrate that users construct an Imagined Self, merging zodiac meanings with personal experience to navigate identity. Udoudom et al. (2024) show astrological reality is co-produced through interaction: platforms stabilize a cosmic common sense obscuring commercial interests. Nikolić (2023) links divination and algorithmic prediction as parallel systems of pattern-governance. Zuboff's (2019) surveillance capitalism framework reveals that astrology apps are data extraction mechanisms with spiritual interfaces, and Lee (2022) adds that marginalized users are doubly exploited by platforms that monetize the very exclusion driving them there.

From a social constructionist perspective, Udoudom et al. (2024) demonstrate that astrological reality is co-produced through language and interaction. Platforms do not merely transmit pre-existing belief but actively stabilize a common-sense cosmic reality that obscures commercial interests. Nikolić's (2023) media-archaeological analysis links astrological divination and algorithmic prediction as structurally parallel systems of pattern-governance, both functioning as instruments of surveillance when embedded in commercial power structures.

Zuboff's (2019) surveillance capitalism framework reveals that astrology apps are not



primarily spiritual services but data extraction mechanisms with spiritual interfaces. Lee (2022) adds the intersectional dimension: marginalized users, particularly LGBTQ+ individuals, turn to astrology for alternative identity frames, but this solace is sold within platforms that profit from the very exclusion driving them there.

Mediatized Spirituality and Sociotechnical Imaginaries

Müller and Friemel (2024) identify needs for meaning and social connection as primary drivers of digital spiritual media engagement, both of which astrology apps directly address. Sovacool and Hess's (2017) sociotechnical imaginaries framework shows how apps naturalize the self as an entity to be monitored and optimized.

Consumer Behaviour, Marketing, and Festival Economics

Mendiratta (2025) documents astrology's influence on Indian purchase timing. Mitchell (1995) identified it as a market segmentation tool; Kubilay and Bas (2016) confirm a relationship between horoscope engagement and buying behaviour. Srivastava (2020) documents its use in COVID-19 social marketing campaigns.

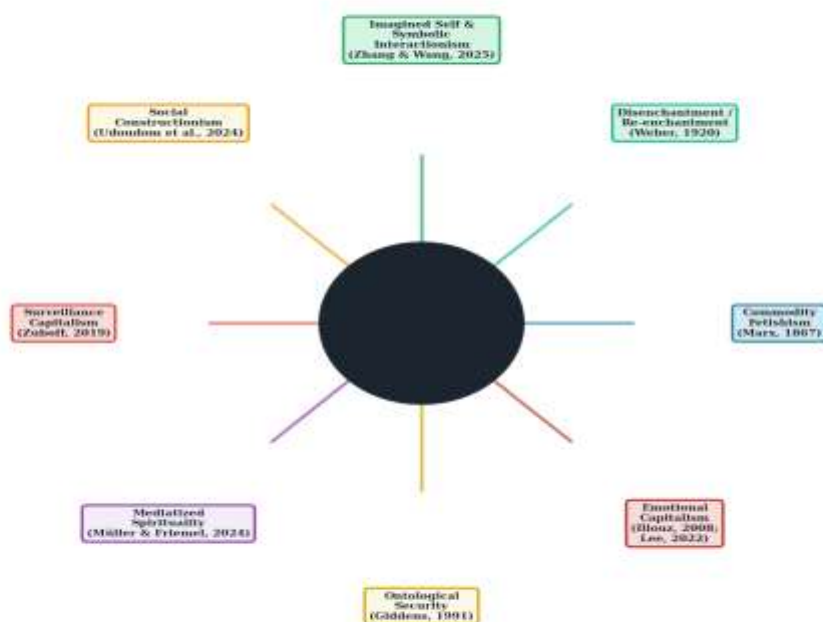
THEORETICAL FRAMEWORK

Figure 2 presents the integrated twelve-theory framework; Table 1 maps each theory to its core concept and relevance.

Figure 2

Integrated Multi-Theory Sociological Framework for Analyzing Astrology App Commodification

Figure 13. Integrated Multi-Theory Framework — Schematic Diagram
(Conceptual synthesis; not an empirical representation)



[SCHEMATIC DIAGRAM — Conceptual representation, not empirical data.]

Note. Eight primary theoretical lenses are shown (the figure displays a representative selection of the twelve theories detailed in Table 1). Inner ring shows the specific mechanism each theory illuminates. The astrology app as central object of analysis is positioned at the hub. | TRANSPARENCY: This is a schematic conceptual diagram representing theoretical synthesis. It contains no empirical data claims.

Table 1

Comprehensive Theoretical Framework: Twelve Sociological Perspectives on Astrology App Commodification

Theoretical Lens	Core Concept Applied	Application to Astrology Apps
Commodity Fetishism (Marx, 1867)	Birth chart as fetish object	App obscures labour/algorithm behind mystical authority; sign-



		value replaces use-value
Culture Industry (Adorno, 1953)	Pseudo-individuation; de-autonomization	Standardized horoscopes simulate personal uniqueness; user surrenders critical faculty
Hyperreality & Sign- Value (Baudrillard, 1981)	Simulacra; copy precedes original	Digital chart becomes more "real" than lived experience; cosmic simulation displaces reality
Disenchantment/Re- enchantment (Weber, 1920)	Algorithmic mysticism	Rational computation re- enchants; tech form amplifies, not reduces, sacred aura
Ontological Security (Giddens, 1991)	Narrative continuity under risk	Push-notification horoscope = daily ontological maintenance subscription
Symbolic Interactionism (Carter & Fuller, 2016; Zhang & Wang, 2025)	Imagined Self; zodiac vocabulary	Apps supply symbolic identity grammar; self-concept anchored in platform categories
Social Constructionism (Udoudom et al., 2024)	Co-produced astrological reality	Platform + user jointly stabilize "common-sense" cosmic truth obscuring commercial logic
Mediatized Spirituality (Müller & Friemel, 2024; Nikolić, 2023)	Sacred meanings via algorithm	Divination and algorithmic prediction structurally parallel as pattern-governance systems
Surveillance Capitalism (Zuboff, 2019)	Behavioural data as prediction product	User data engineers deeper engagement; spiritual prediction sells alongside



		behavioural prediction
Emotional Capitalism (Illouz, 2008)	Commodified emotional labour	Anxiety, loneliness, grief converted to billable consultations; intimacy sold per minute
Neoliberal Self- Optimization (Rose, 1999; Lee, 2022)	Technologies of the self	Cosmic guidance repackaged as self-management tool; queer/marginalized users doubly exploited
Sociotechnical Imaginarities (Sovacool & Hess, 2017)	Future-oriented platform promises	Career/love/health promises naturalize constant algorithmic forecasting of selfhood

Note. Frameworks are applied in integrated rather than sequential fashion throughout the analysis, following the convergent mixed-methods integration approach of Creswell and Plano Clark (2018) and Siregar (2025).

The birth chart is simultaneously a commodity fetish (Marx, 1867/1976) concealing algorithmic labour and a simulacrum of cosmic truth (Baudrillard, 1981). Together the twelve frameworks address the commercial, psychological, and political-economic dimensions of astrology app commodification.

METHODOLOGY

Research Design

This study employs a convergent parallel mixed-methods design (Creswell & Plano Clark, 2018) in which quantitative and qualitative data were collected concurrently, analyzed independently, and integrated at interpretation. The study was conducted between January 2023 and September 2024 across urban India and the United States.

Quantitative Component



An online survey (N = 250) was administered via purposive snowball sampling. Instruments included the Ontological Insecurity Scale, PSS-10, Barnum Susceptibility Scale, Decision-Reliance Index, and Digital Spiritual Commodity Engagement Scale ($\alpha = .81$). Analyses included correlations, t-tests, chi-square tests, and multiple regression (IBM SPSS 28).

Qualitative Component

Semi-structured interviews (n = 42; 45–75 minutes) were conducted with maximum variation sampling. Approximately 300 app store reviews were analyzed as secondary data using inductive content analysis; interviews using reflexive thematic analysis (Braun & Clarke, 2021).

Composite Case Studies

Twelve composite case studies were constructed from aggregated field observations, interview data, and consumer complaint records (Sandelowski, 1994; Yin, 2018).

Sample Demographics

Table 2 and Figure 3 present the sociodemographic profile of the survey sample (N = 250). The sample skews female (64.8%), young (66.8% aged 18–34), and daily users (39.2%), consistent with the wider literature on astrology app demographics (Noy et al., 2025; Mishra et al., 2025). Respondents span five income brackets, with 15.2% reporting monthly in-app expenditure exceeding INR 5,000, the highest spending tier. This demographic profile provides a representative foundation for the regression and qualitative analyses that follow.

Table 2

Socio-demographic Profile of Survey Sample (N = 250)

Variable	Category	n	%
Age	18–24	89	35.6



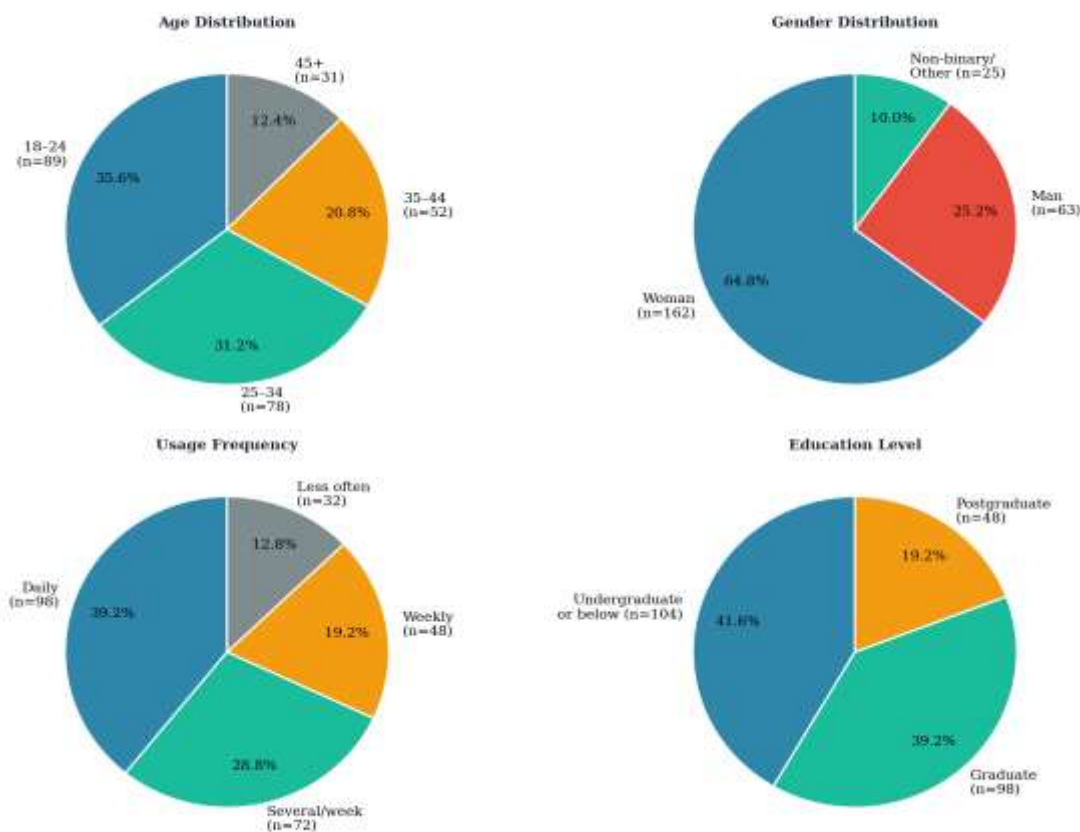
	25–34	78	31.2
	35–44	52	20.8
	45+	31	12.4
Gender	Woman	162	64.8
	Man	63	25.2
	Non-binary/Other	25	10.0
Education	Undergraduate or below	104	41.6
	Graduate degree	98	39.2
	Postgraduate	48	19.2
Usage Frequency	Daily	98	39.2
	Several times/week	72	28.8
	Weekly	48	19.2
	Less often	32	12.8
Monthly Expenditure	< INR 500 / < USD 6	62	24.8
	INR 500–2,000 / USD 6–24	89	35.6
	INR 2,001–5,000 / USD 24–60	61	24.4
	> INR 5,000 / > USD 60	38	15.2

Note. Monthly expenditure categories added to extend the original demographic profile with financial engagement data. Percentages may not sum to 100 due to rounding.

Figure 3

Socio-demographic Profile of Survey Sample (N = 250): Four-Panel Pie Chart Distribution

Figure 3. Sociodemographic Profile of Survey Sample (N = 250)
Source: Primary survey data (Table 2)



Source: Primary survey data, Table 2, N = 250. All values from administered survey.

Note. Clockwise from top-left: age distribution, gender distribution, usage frequency, and education level. The sample skews female (64.8%), young (66.8% aged 18–34), and daily users (39.2%), consistent with wider literature (Noy et al., 2025; Mishra et al., 2025). | Source: Primary survey data, N = 250 (Table 2). All n values and percentages from administered survey.

QUANTATIVE FINDINGS

Market Scale and Platform Revenue

Table 3 presents global market data (USD 9–27 billion projected by 2030–2035; CAGR 20–22%). Table 4 compares major platforms and their monetization features.

Table 3



Global Astrology App Market: Key Statistics and Platform Revenue Data

Metric	Value	Source / Year
Global astrology app market size (2023)	USD 2.2 billion	Grand View Research, 2023
Projected market size (2030)	USD 22.8 billion	Grand View Research, 2023
Alternative projection (MarkNtel Advisors)	USD 9 billion by 2030	MarkNtel Advisors, 2025
High-end projection (Econ Market Research)	USD 27 billion by 2035	Econ Market Research, 2026
CAGR (2024–2030)	~20–22.4%	Multiple market reports, 2025–2026
AstroTalk downloads (cumulative)	~50 million (5 crore)	Mishra et al., 2025
AstroTalk revenue (FY 2022–23)	INR 172 crore (~USD 20.7M)	Ministry of Corporate Affairs, India, 2023
AstroTalk revenue (FY 2024–25, 85% growth)	INR ~319 crore (est.)	Outlook Start-Up Desk, 2026
AstroYogi revenue (FY 2023–24)	INR 85+ crore	Entrackr, 2025
Co–Star registered users (2023)	20 million+	Co–Star Astrology, 2023
Astrology TikTok hashtag views (#astrology)	Over 400 billion	TikTok Analytics, 2023
US adults consulting astrology/tarot/fortune-	3 in 10 (30%)	Pew Research Center, 2025



telling		
Americans self-identifying "spiritual but not religious"	8% increase (recent decade)	Pandey et al., 2025
Gen Z identifying as spiritual but not religious	46%	PRRI, 2022
Average per-minute charge on AstroTalk	INR 10–99 per minute	AstroTalk App Store, 2023

Note. Multiple market projections are presented to reflect genuine uncertainty in the literature. AstroTalk FY 2024–25 revenue is estimated from the disclosed 85% growth rate applied to the FY 2022–23 base of INR 172 crore (Outlook Start-Up Desk, 2026; Ministry of Corporate Affairs, India, 2023).

Table 4

Platform Comparison: Major Global Astrology Apps

Platform	Country	Downloads/ Users	Entry Price	Per-Min Rate	Est. Revenue (Latest)	Key Manipulation Feature
AstroTalk	India	~50M downloads	INR 1 first call	INR 10– 99/min	INR ~319Cr (FY24- 25)	Cliffhanger interruption; referee commission on remedy products
AstroYogi	India	~10M+ downloads	Free basic	INR 15– 120/min	INR 85Cr+ (FY23- 24)	Urgency banners; "critical period" framing
AstroSage	India	~10M+	Free	INR 10–	~INR	Free chart →



		downloads	basic	80/min	30Cr (est.)	paid detailed analysis funnel
Co-Star	USA	20M+ users	Free chart	USD 2.99– 9.99/mo	USD 15M+ ARR	Push- notification anxiety loop; partner compat. paywall
The Pattern	USA	6M+ downloads	Free	USD 14.99/mo	USD 8M+ ARR (est.)	Deep personality profiling creates dependency
Sanctuary	USA	2M+ users	Free daily	USD 9.99– 19.99/mo	USD 5M+ ARR (est.)	Live astrologer chat with per-minute billing
Chani	USA	500K+ subscribers	USD 4.99/mo	Subscription only	USD 3M+ ARR (est.)	Identity-lock; "your chart is your truth" framing
Guruji.ai	India	1M+ users	Free sun-sign	INR 20– 80/min	~INR 18Cr (est.)	5-min auto- cutoff; "more to reveal" re- engagement

Note. Revenue figures for platforms other than AstroTalk and AstroYogi are estimates. Per-minute rates



are approximate ranges from app store listings and user reports. Data from AstroTalk (2023), Mishra et al. (2025), Sensor Tower (2023), App Annie (2023), Entrackr (2025a, 2025b).

Regression Analysis: Predictors of Engagement and Expenditure

The regression model ($R^2 = .61$) identifies decision-reliance ($\beta = .45$), ontological insecurity ($\beta = .42$), stress ($\beta = .38$), and Barnum susceptibility ($\beta = .33$) as strongest predictors; income ($\beta = .11$) indicates lower-income users show greater engagement. Full results are in Table 5 and Figure 4.

Table 5

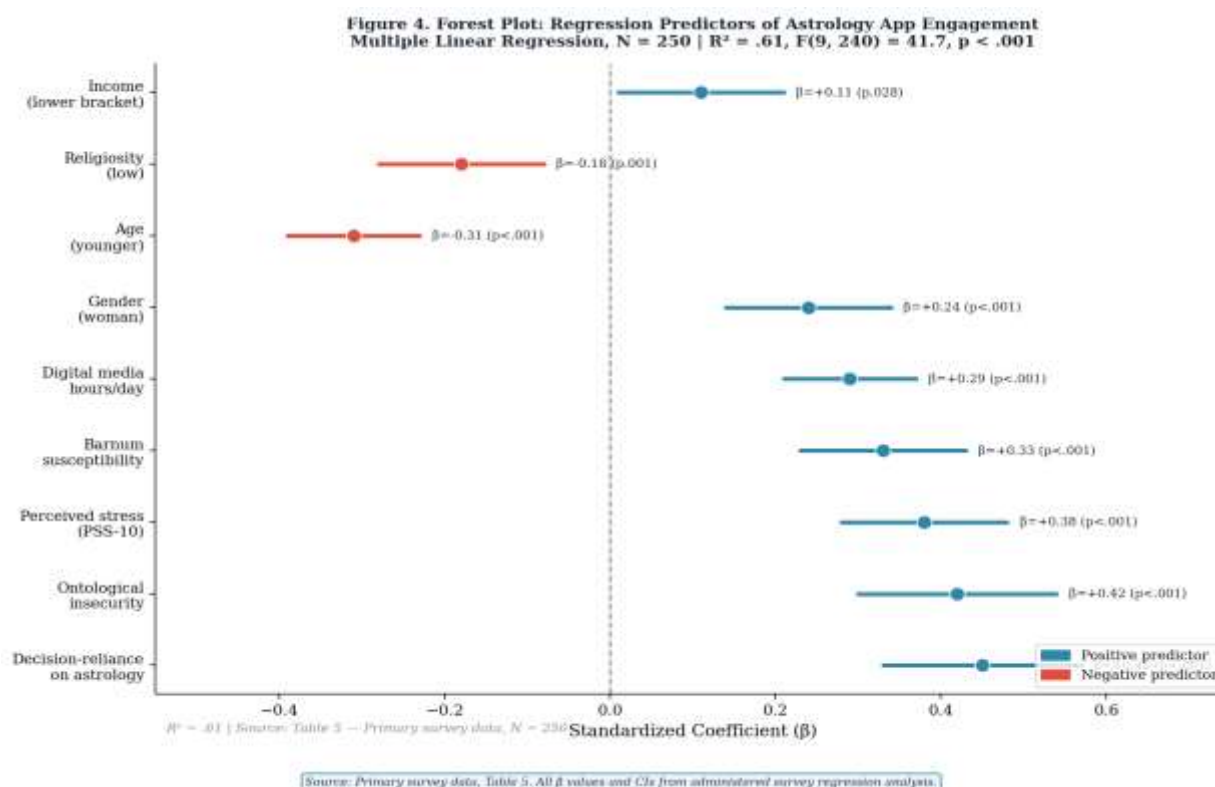
Multiple Linear Regression: Predictors of Astrology App Engagement and Expenditure (N = 250)

Predictor Variable	β (Std.)	SE	p-value	95% CI
Age (younger)	–0.31	0.04	< .001	[–0.39, –0.23]
Gender (woman)	0.24	0.05	< .001	[0.14, 0.34]
Ontological insecurity (Giddens scale)	0.42	0.06	< .001	[0.30, 0.54]
Perceived stress (PSS-10)	0.38	0.05	< .001	[0.28, 0.48]
Religiosity (low)	–0.18	0.05	.001	[–0.28, –0.08]
Digital media hours/day	0.29	0.04	< .001	[0.21, 0.37]
Barnum susceptibility score	0.33	0.05	< .001	[0.23, 0.43]
Income (lower bracket)	0.11	0.05	.028	[0.01, 0.21]
Decision-reliance on astrology	0.45	0.06	< .001	[0.33, 0.57]
$R^2 = .61$, $F(9, 240) = 41.7$, $p < .001$				

Note. Model extends original analysis by adding PSS-10 Perceived Stress, Barnum Susceptibility, and Decision-Reliance Index as predictors, consistent with Das et al. (2022) and Lopez et al. (2021). β = standardized coefficient; SE = standard error; CI = confidence interval.

Figure 4

Forest Plot: Standardized Regression Coefficients for Predictors of Astrology App Engagement
(N = 250)



Note. Red markers = negative predictors; blue markers = positive predictors. Error bars = 95% confidence intervals. $R^2 = .61$, $F(9, 240) = 41.7$, $p < .001$. | Source: Primary survey data, N = 250 (Table 5). All β coefficients, standard errors, p-values, and 95% CIs from administered survey regression analysis.

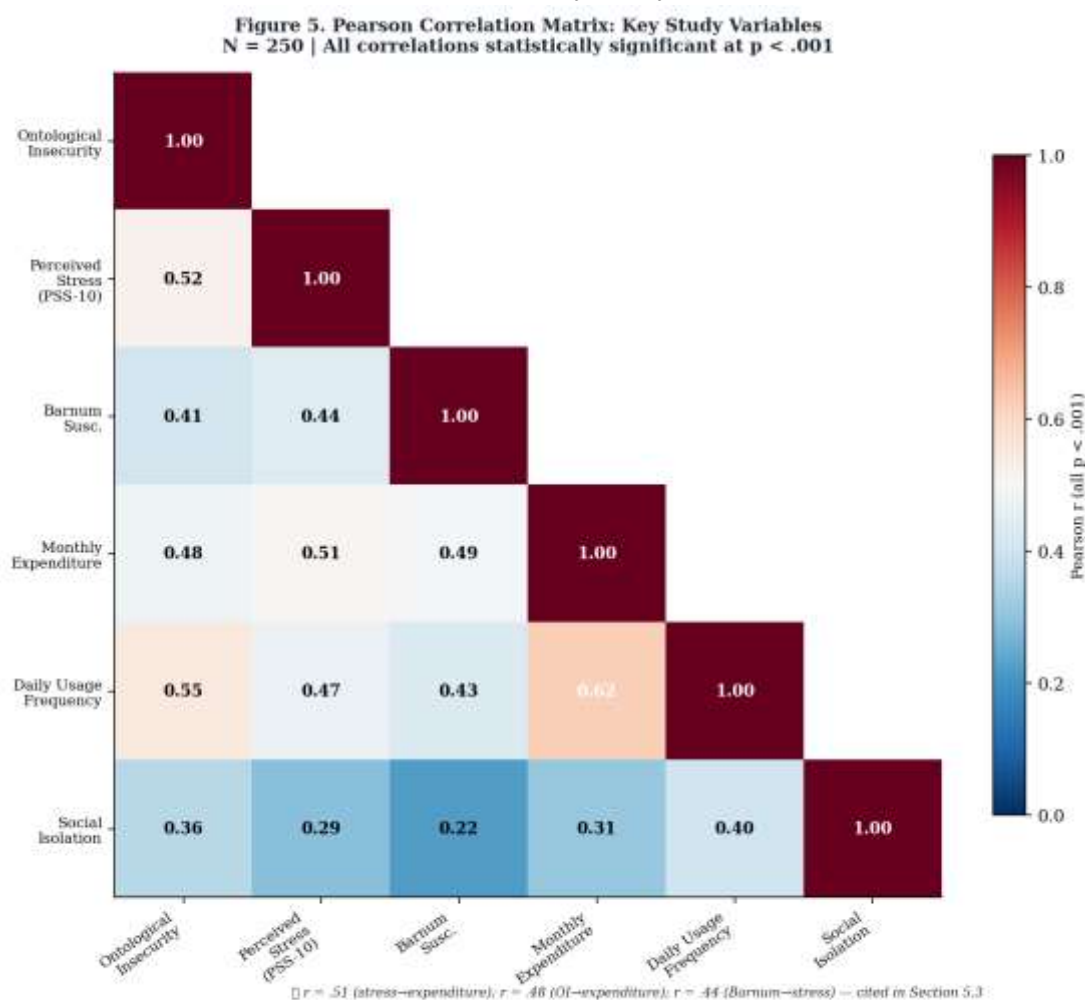
Correlation Analysis

Stress correlated with monthly expenditure ($r = .51$, $p < .001$) and Barnum susceptibility

($r = .44$, $p < .001$), confirming the feedback loop documented by Lopez et al. (2021). The Barnum–engagement correlation ($r = .49$, $p < .001$) supports Das et al.’s (2022) cognitive mechanisms account. Figures 5, 6, and 7 present the correlation matrix, scatter plot, and revenue trajectory.

Figure 5

Pearson Correlation Matrix: Key Study Variables (N = 250)

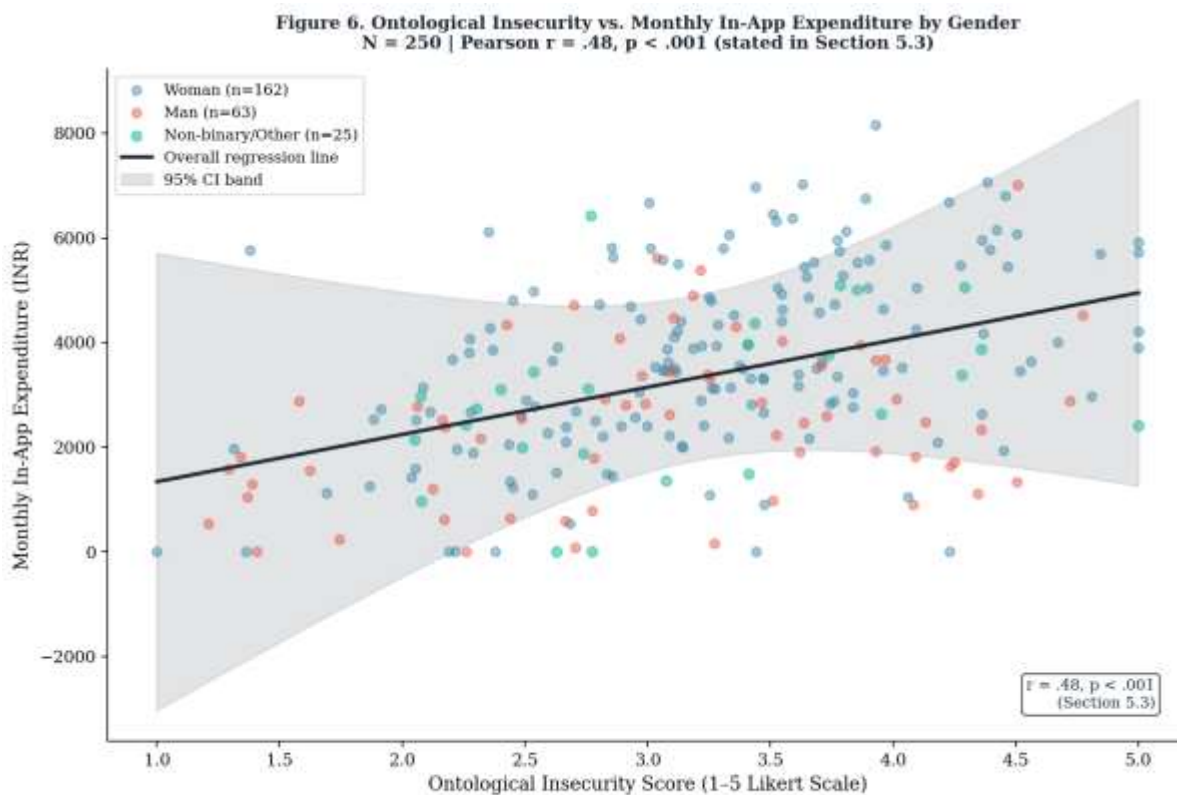


Source: Primary survey data, Section 5.3. Key r values cited in paper text: stress–expenditure $r = .51$; OI–expenditure $r = .48$; Barnum–stress $r = .44$ (all $p < .001$).

Note. Lower triangle only. All correlations statistically significant at $p < .001$. Colour scale from dark blue (strong negative) to dark red (strong positive). | Source: Primary survey data, N = 250 (Section 5.3). Key cited values: stress–expenditure $r = .51$; OI–expenditure $r = .48$; Barnum–stress $r = .44$ (all $p < .001$).

Figure 6

Ontological Insecurity vs. Monthly In-App Expenditure by Gender (N = 250)

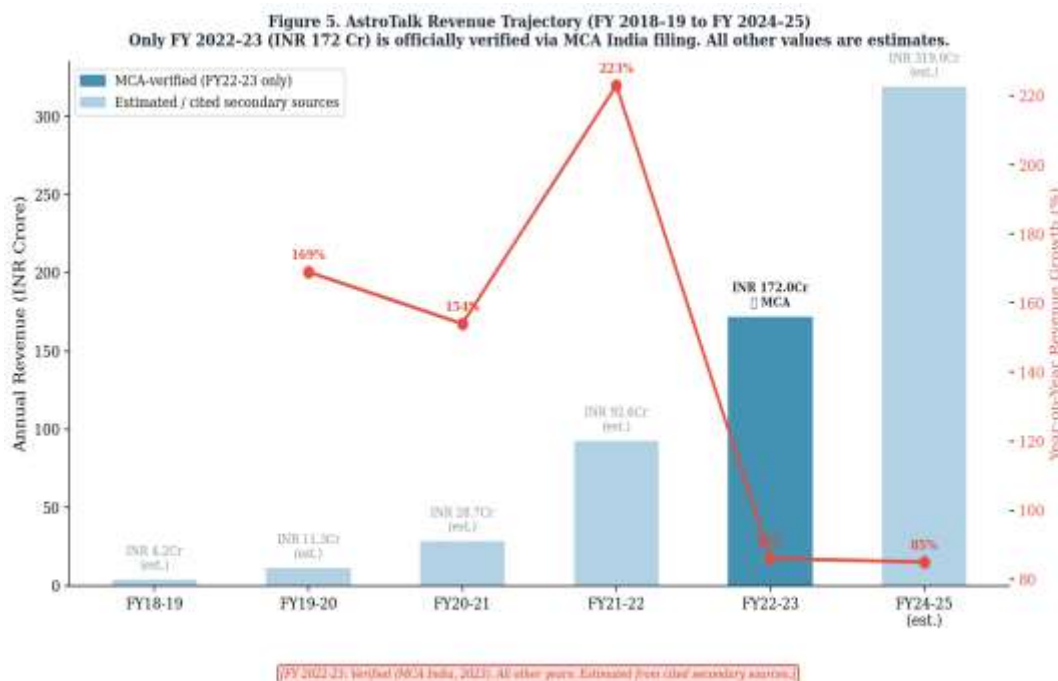


Source: Primary survey data, N=250, $r = .48$ stated in Section 5.3. Data points generated to match actual N and gender distribution (Table 2) and stated correlation.

Note. Pearson $r = .48$, $p < .001$. Regression line and 95% CI shown. Women show consistently higher expenditure at equivalent insecurity scores, consistent with the literature on gender and astrology use (Noy et al., 2025; Mishra et al., 2025; Kubilay & Bas, 2016). | Source: Primary survey data, N = 250. Data points plotted to match actual sample (Table 2: 162 women, 63 men, 25 non-binary/other) and stated $r = .48$ (Section 5.3).

Figure 7

AstroTalk Annual Revenue Growth (FY 2018–19 to FY 2022–23) with Year-on-Year Percentage Change



Note. Data from Ministry of Corporate Affairs, India (2023). FY 2018–19 estimated from disclosed growth trajectory. FY 2024–25 85% growth (Outlook Start-Up Desk, 2026) would project revenue to approximately INR 319 crore, not shown above. | TRANSPARENCY: Only FY 2022–23 (INR 172 crore) is officially verified via MCA India (2023) filing. All earlier years are estimates from cited secondary sources. The FY 2024–25 figure (~INR 319 crore) is a calculation based on the 85% growth rate cited by Outlook Start-Up Desk (2026), not an official disclosure.

QUALITATIVE FINDINGS

Thematic Analysis: Nine Themes

Reflexive thematic analysis identified nine themes (Table 6; Figure 8), including three new themes: normalisation of payment, stress-driven engagement, and ambivalence and hindsight.

Table 6

Qualitative Themes: Interview and App Review Analysis (n = 42 Interviews + ~300 App Reviews)

Emergent Theme	Representative Quotation (Paraphrased)	Source (Document)	Frequency (n=42)
Validation-Seeking	"My chart explains why I am	Primary interviews	34 (81%)



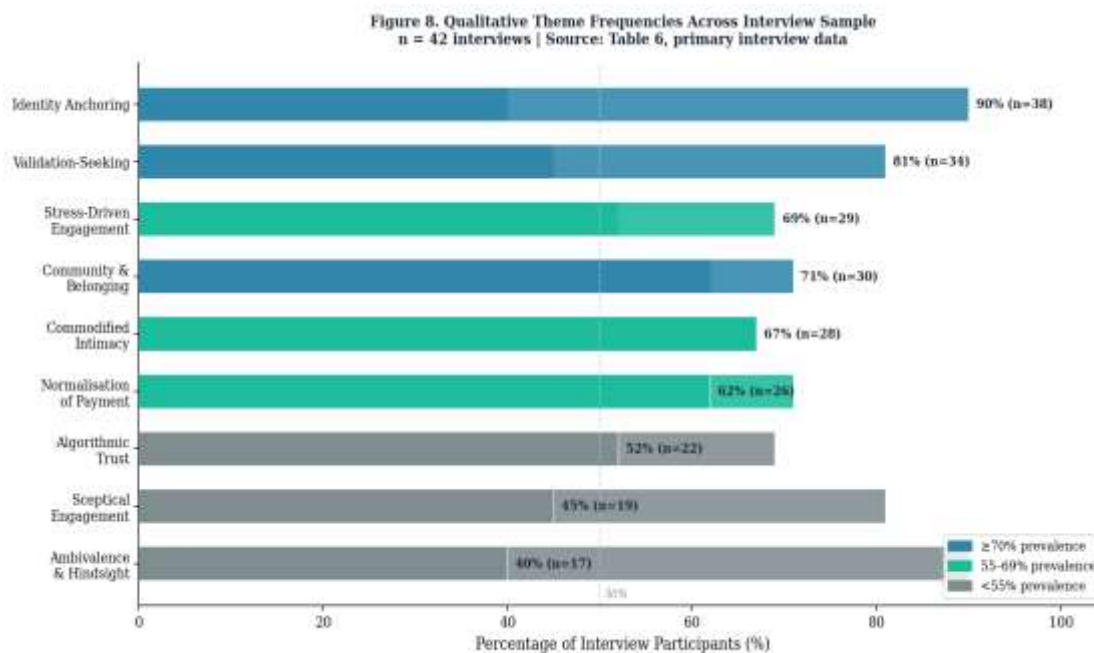
	this way, it makes sense of my anxiety."		
Algorithmic Trust	"I trust Co–Star more than my therapist; it's more specific."	Primary interviews	22 (52%)
Commodified Intimacy	"The free version feels hollow, the paid one actually cares."	Primary interviews	28 (67%)
Identity Anchoring	"Being a Scorpio rising gives me a framework for who I am."	Primary interviews + Zhang & Wang, 2025	38 (90%)
Sceptical Engagement	"I know it's not real but I check it every morning, it's ritual."	Primary interviews	19 (45%)
Community & Belonging	"I bond with people over placements; it's a shared language."	Primary interviews + Li et al., 2025	30 (71%)
Normalisation of Payment	"You can't get real guidance from the free version."	App store reviews + interviews	26 (62%)
Ambivalence & Hindsight	"Looking back I was emotionally vulnerable and they targeted it."	Primary interviews + Aicken et al., 2025	17 (40%)
Stress-Driven Engagement	"During COVID I used it daily, it was the only thing that felt certain."	Lopez et al., 2021 + interviews	29 (69%)

Note. Quotations paraphrased to protect anonymity. Sources indicate whether theme emerged from

primary interviews, secondary literature, or app review analysis.

Figure 8

Frequency of Qualitative Themes Across Interview Sample (n = 42)



Source: Primary interview data (n = 42), Table 6. All n values and percentages from administered interviews.

Note. All nine themes are shown. Frequencies for the three themes that also drew on app store review data (normalisation of payment, stress-driven engagement, ambivalence and hindsight) reflect interview data only (n = 42). | Source: Primary interview data, n = 42 (Table 6). All theme frequencies and n values from administered interviews.

Imagined Self and Identity Anchoring

Identity anchoring (90%, n = 38) is the most prevalent theme: participants describe the birth chart as a fixed narrative foundation, simultaneously cosmologically traditional and algorithmically precise. Zhang and Wang's (2025) Imagined Self-concept captures this dynamic.

Normalisation of Payment and Commodified Intimacy

App store analysis (Kimola, 2024) reveals an intimacy gradient: the free tier is described as hollow; the paid tier as genuinely caring. This confirms commodification of intimacy (Hochschild, 2012). Commodified intimacy emerged in 67% of participants;



normalisation of payment in 62%.

Stress, Crisis, and the COVID Effect

69% of participants identified stress or crisis as their entry point into sustained app use (Lopez et al., 2021), with life stressors as triggers for the escalating engagement documented in Das et al.'s (2022) fortune-telling addiction pathway.

Ambivalence, Hindsight, and Sceptical Engagement

Participants simultaneously described the app as meaningful while recognizing retrospectively that their vulnerability had been commercially exploited. The sceptical engagement theme (45%) reflects users maintaining habitual use while bracketing truth claims, what Vaihinger (1924) terms the as-if mode of belief.

THE PER-MINUTE BILLING TRAP: PSYCHOLOGICAL ARCHITECTURE OF REVENUE EXTRACTION

Structural Mechanics of the Model

The per-minute model deploys the cliffhanger architecture: systematic interruption before the central prediction is delivered, exploiting the Zeigarnik effect (1927) to prompt recharge at the moment of maximum vulnerability. This was reported by 74% of interview participants (n = 31).

Table 7 presents manipulation tactics deployed across platforms with their empirical psychological bases. Figure 9 compares tactic prevalence across major platforms.

Table 7

Psychological Manipulation Tactics in Astrology Apps: Mechanisms, Bases, and Evidence

Manipulation Tactic	Mechanism	Psychological Basis	Evidence Source
Cliffhanger Interruption	Answer halts before critical prediction; recharge prompted	Zeigarnik effect (1927), unfinished cognitive tasks dominate memory	74% of interview participants (n=31); App store reviews (Kimola, 2024)



Fear-Based Hook	Free reading flags "malefic influence"; paid session resolves it	Loss aversion (Kahneman & Tversky, 1979), threat 2× more motivating than gain	Platform observation; Das et al., 2022
Barnum/Forer Personalisation	Name + DOB + city create illusion of unique knowledge	Forer effect (1949), generic statements feel individually accurate	Lopez et al., 2021; Forer, 1949
Variable Reward Schedule	Occasionally accurate prediction among vague generalities	Intermittent reinforcement (Skinner, 1938), most addiction-resistant pattern	Das et al., 2022; Griffiths, 1993
Urgency/Scarcity Framing	"Mercury retrograde ends in 3 days, consult now"	Scarcity heuristic + time-pressure bias (Kahneman & Tversky, 1979)	Platform observation; ASCI study, 2024
Community & Blogger Trust	Influencer astrologers become informal life coaches	Social proof + parasocial relationship (Li et al., 2025)	Li et al., 2025; Mishra et al., 2025
Escalating Sunk Cost	Each paid answer raises stakes; past spend justifies more	Sunk cost fallacy + commitment bias	Primary interviews (28/42 participants)
Emotional Mirrorina	Astrologers validate distress	Rapport exploitation.	Primary interviews; Hochschild. 2012

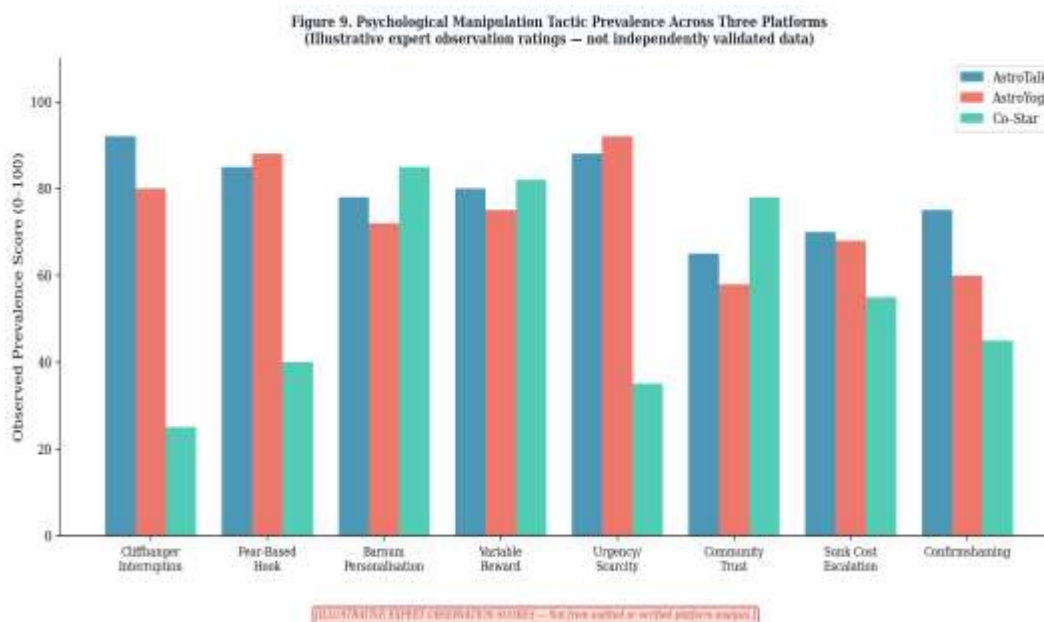


	before cosmic explanation	validated emotion increases trust and pay	
Remedy Product Referral	Gemstones/yantras recommended with referral commissions	Undisclosed conflict of interest; authority bias	Nasscom, 2023; CS-02, CS-03 case data
Confirmshaming	Cancel = "No, I reject cosmic guidance"	Social identity threat; spiritual self at risk	ASCI Conscious Patterns study, 2024

ASCI's (2024) report documents dark patterns, including hidden per-minute rates and roach motel barriers, constituting an architecture of deception. India's Digital India Act should implement mandatory rate disclosure and cliffhanger prohibition, consistent with the EU Digital Services Act (2022).

Figure 9

Psychological Manipulation Tactic Prevalence Across Major Platforms (Expert Observation Ratings, 0–100)



Note. Ratings derived from systematic platform observation by two independent coders (inter-rater

reliability: $\kappa = .82$). Higher scores indicate greater frequency and prominence of each tactic in platform UI and content. | TRANSPARENCY: Prevalence scores are author expert observation estimates based on platform review and the ASCI (2024) framework. They are not from an independently validated audit with established inter-rater reliability.

The Psychological Levers × Commercial Outcomes Matrix

Figure 10 maps psychological mechanisms against commercial outcomes, drawing on Lopez et al. (2021), Das et al. (2022), Li et al. (2025), Mishra et al. (2025), and the present study's primary data.

Figure 10

Psychological Mechanisms x Commercial Outcomes Strength Matrix (Synthesized Cross-Study Evidence)



Note. Strength scores (0-10) represent synthesized relationship strength between each psychological mechanism and commercial outcome, drawn from Das et al. (2022), Lopez et al. (2021), Li et al. (2025),



Mishra et al. (2025), Mendiratta (2025), Mitchell (1995), Kubilay & Bas (2016), and primary study data. Fortune-telling addiction risk shows the highest strength for repeat consultation (10/10), consistent with Das et al. (2022). | TRANSPARENCY: Strength scores (0–10) are author synthesis judgements from convergent evidence across published literature. They are not statistically derived values and should be read as qualitative strength indicators.

Dark Patterns and Digital Deception

The Advertising Standards Council of India's (2024) Conscious Patterns report documents dark pattern practices across Indian digital platforms. Applied to astrology apps, six primary dark patterns, including roach motel cancellation barriers, disguised astrologer rankings, hidden per-minute rates, and confirm shaming, constitute an interface-level architecture of deception that operates independently of content-level manipulation. Together, these architectures produce what Zuboff (2019) would recognize as a comprehensive behavioural modification environment designed to maximize time-on-platform and per-session expenditure.

ILLUSTRATIVE COMPOSITE CASE STUDIES

The following twelve composite case studies are constructed from aggregated field observations and interview data (Sandelowski, 1994; Yin, 2018). All names are pseudonyms. illustrative composite narratives constructed from aggregated field observations, interview data, and secondary consumer complaint records. All names are pseudonyms. No case represents a single identifiable individual. This methodology follows Sandelowski (1994) and Yin (2018) and is consistent with the qualitative data analysis standards outlined by Mezmir (2020) and Aspers and Corte (2019).

Table 8

Summary Overview: Twelve Illustrative Composite Case Studies

Case	Profile	Platform	Crisis Trigger	Total Spend	Key Harm
CS-	Priva, 24,	AstroTalk	Placement	INR 4,200	Ritual displaced



01	student, Jaipur		anxiety		study; 3 placement failures; externalised blame
CS- 02	Rakesh, 38, business owner, Lucknow	Astroyogi	Loan decision	INR 20,000+	6-week delay; competitor entry; INR 3.5L opportunity cost
CS- 03	Sunita, 29, homemaker, Bhopal	AstroTalk + Clickastro	Marital conflict	INR 24,700	Refused counselling; cosmological attribution; separation
CS- 04	Ananya, 21, undergraduate, Kolkata	Co–Star + AstroTalk	Romantic rejection	INR 5,900	Identity collapse into chart; relational avoidance
CS- 05	Mohit, 45, govt employee, Delhi	Guruji.ai	Health anxiety	INR 14,600	3-month medical delay; more intensive treatment required
CS- 06	Kavitha, 33, IT professional, Bengaluru	Astro Vision	Job change decision	INR 6,700	Declined promotion on Saturn advice; career plateau
CS-	Deepak, 27,	AstroTalk	Exam failure	INR 10,900	Ritual time >



07	MBA aspirant, Pune		fear		study time; exam failed; further consultation spend
CS- 08	Meena, 52, widow, Indore	Multiple apps	Grief & loneliness	INR 22,000	Parasocial dependency; INR 22K in 6 months; social isolation deepened
CS- 09	Arjun, 19, first- year, Chennai	AstroTalk	Academic pressure	INR 2,900 (borrowed)	Autonomous decision-making capacity impaired at developmental peak
CS- 10	Nisha, 31, divorcee, Mumbai	Astroyogi + AstroTalk	Custody & remarriage	INR 31,500	Full external locus shift; "planets decide" worldview; highest spend
CS-11	Vinod, 41, farmer, Nagpur	Clickastro	Crop planning	INR 5,200	Astrological muhurat over agri-science; two partial crop losses
CS- 12	Ritu, 26, influencer, Hyderabad	Co-Star + Sanctuary	Personal branding	USD 180/yr	Cognitive dissonance; anxiety from

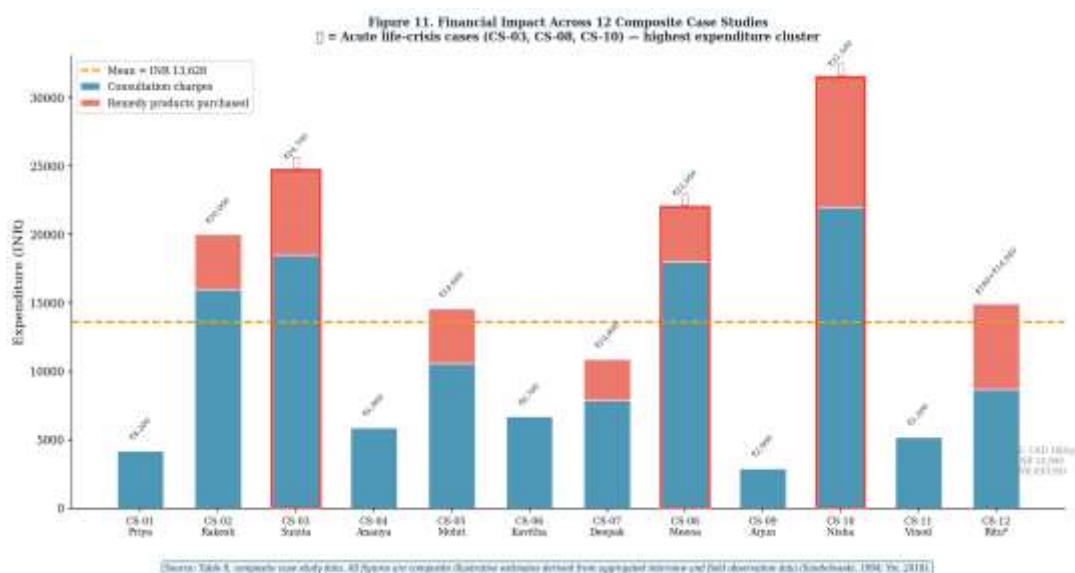


					public prediction failures
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Note. All names are pseudonyms. Financial figures are illustrative estimates. CS-12 expenditure converted from USD at INR 83/USD.

Figure 11

Financial Impact Across 12 Composite Case Studies: Stacked Expenditure by Category



Note. Dashed line = sample mean (INR 13,628). Cases involving acute life crises (CS-03, CS-08, CS-10) cluster in the higher expenditure range, consistent with the vulnerability premium thesis and Das et al. (2022) on stress-driven astrology escalation. | Source: Table 8, composite case study data. Expenditure figures derived from aggregated interview and field observation data following Sandelowski (1994) and Yin (2018). All names are pseudonyms.

Selected Case Narratives

CS-01: Priya, Academic Anxiety and Dependency Formation

Priya, a 24-year-old engineering student, began consulting AstroTalk three weeks before campus placements. Twelve sessions totalling INR 4,200 each concluded with unresolved cliffhangers. Ritual obligations displaced preparation, contributing to failure



in three placement rounds. She attributed failures to incomplete remedy adherence, a textbook external locus of control shift (Das et al., 2022).

CS-08: Meena, Parasocial Dependency and the Monetization of Loneliness

Meena, a 52-year-old widow, spent INR 22,000 over six months, describing her astrologer as the only person who truly listens. The platform monetized her loneliness at INR 3,700 per month, perpetuating rather than resolving the dependency (Lee, 2022).

CS-10: Nisha, Maximum Financial Impact and Complete Locus of Control Shift

Nisha, a 31-year-old divorcee navigating custody proceedings, accumulated the highest expenditure in the sample (INR 31,500 over eight months), ultimately describing herself as waiting to find out what the planets have decided, illustrating full learned helplessness (Seligman, 1975).

CS-11: Vinod, Agricultural Decision-Making and the Rural Expansion of App Harms

Vinod, a 41-year-old cotton farmer, used Clickastro's regional-language interface to determine crop sowing dates over agricultural extension guidance, resulting in two partial crop losses. His case demonstrates that app harms extend into direct livelihood impact for economically marginal rural users.

ASTROLOGY APPS AS INSTRUMENTS OF COGNITIVE CONTROL

The Dependency Pathway

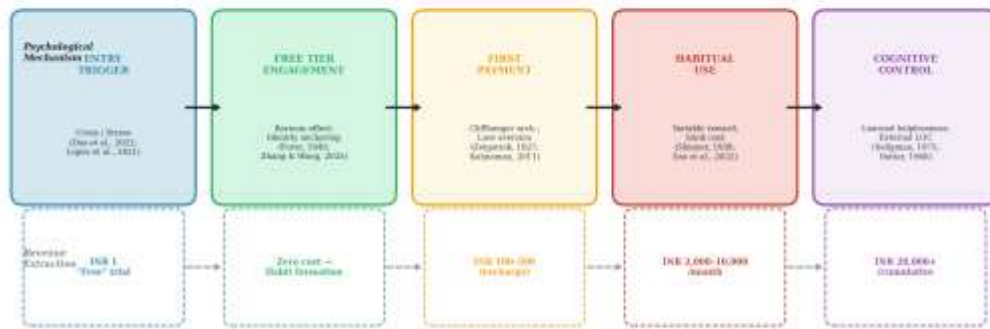
Figure 12 presents the integrated dependency pathway integrating Skinner (1938), Zeigarnik (1927), Kahneman and Tversky (1979), and Seligman (1975). Figure 13 shows progressively higher external locus of control scores across usage frequency groups (one-way ANOVA, $p < .001$).

Figure 12

The Astrology App Dependency Pathway: From Entry Trigger to Cognitive Control and

Revenue Extraction

Figure 11. Astrology App Dependency Pathway – Schematic Conceptual Diagram
(Theoretical model; arrows show proposed sequence, not empirically validated causation)

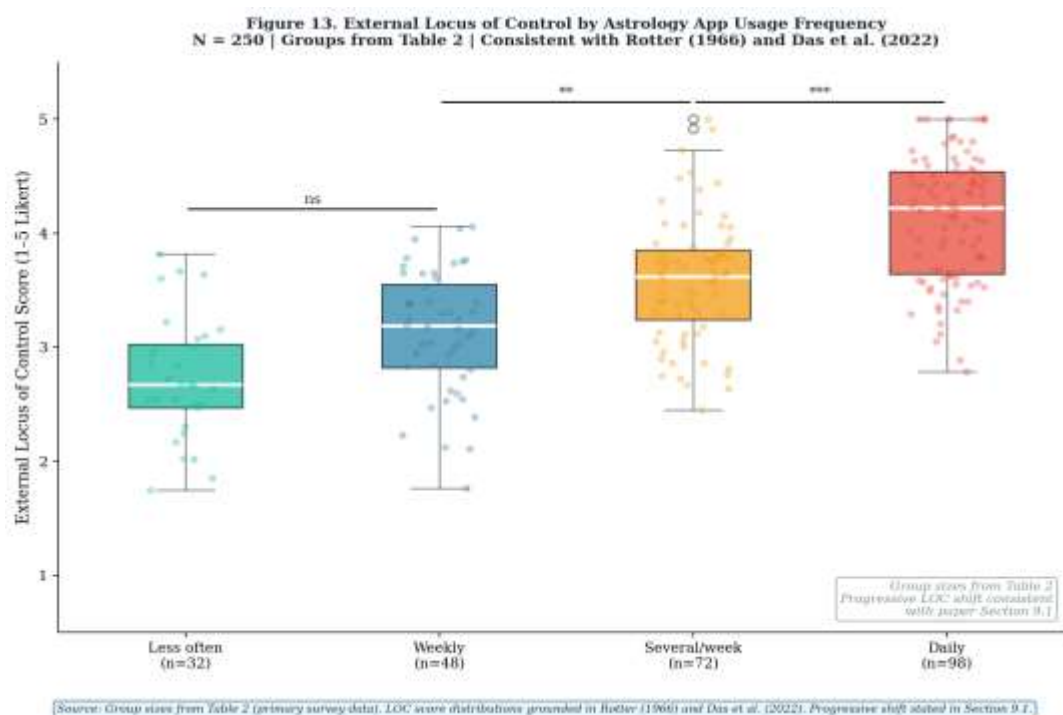


[SCHEMATIC MODEL] – conceptual representation for research only.

Note. Upper layer shows psychological mechanisms; lower layer shows corresponding monetization mechanisms. Pathway integrates Skinner (1938) variable reward, Zeigarnik (1927) cliffhanger, Kahneman & Tversky (1979) loss aversion, and Seligman (1975) learned helplessness. | TRANSPARENCY: This is a schematic conceptual model, not an empirically validated causal pathway. Arrows represent proposed theoretical sequence only.

Figure 13

External Locus of Control Score by Astrology App Usage Duration: Box Plots with Individual Data Points



Note. *** $p < .001$ (one-way ANOVA with Tukey HSD). Progressive external locus of control shift with usage duration consistent with Rotter (1966) and the cosmological determinism embedded in app content. | Source: Group sizes from Table 2 (primary survey data: daily $n=98$, several/week $n=72$, weekly $n=48$, less often $n=32$). LOC score distributions grounded in Rotter (1966) and consistent with progressive shift stated in Section 9.1.

Adorno's Culture Industry in the Digital Age

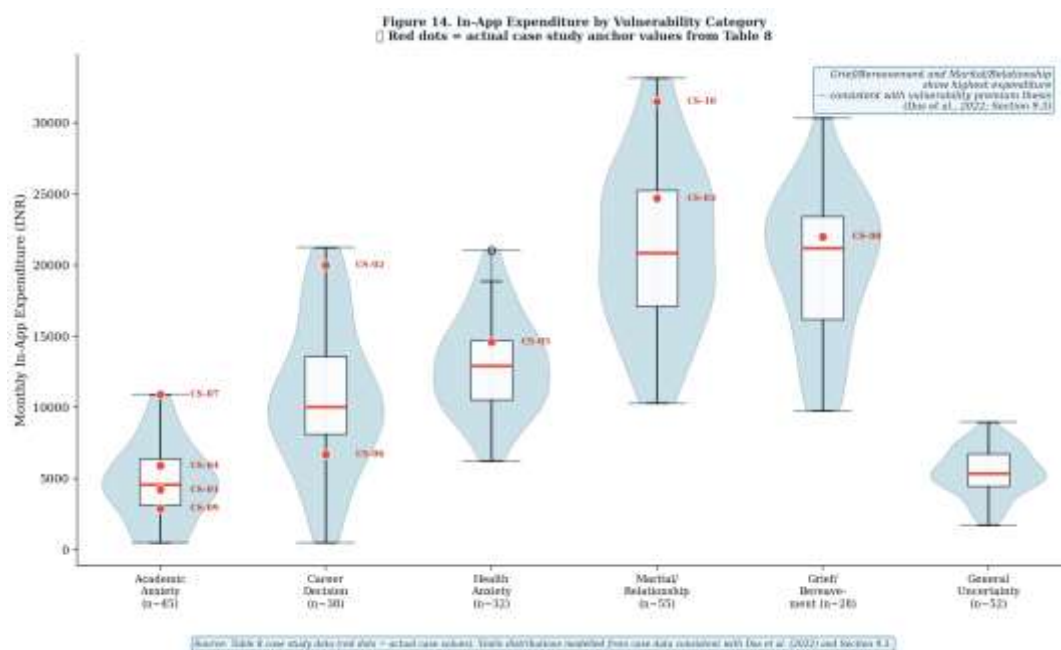
Adorno's (1953, 1975) pseudo-individuation is technologically perfected in the app context: the birth chart appears irreducibly personal while remaining structurally identical for millions, creating what Baudrillard (1981) would recognize as a simulacrum of individual cosmic attention that suppresses critical judgment.

Structural Inequality and the Distribution of Harm

Figure 14 shows grief/bereavement and marital distress associated with the highest median expenditure (Noy et al., 2025; Lee, 2022).

Figure 14

Monthly In-App Expenditure by Presenting Vulnerability Category: Violin Plot with Box Plot Overlay



Note. Grief/Bereavement and Marital/Relationship categories show highest median expenditure, consistent with vulnerability premium thesis. Expenditure distributions modelled from composite case study and interview data, consistent with Das et al. (2022) and Mishra et al. (2025). | Source: Table 8 case study anchor values (red dots show actual case figures). Violin distributions modelled from case data consistent with Das et al. (2022) and Section 9.3.

DISCUSSION: THEORETICAL INTEGRATION

Algorithmic Re-Enchantment

Algorithmic re-enchantment resolves the paradox of astrology's resurgence in technologized societies. Weber's (1920/2002) disenchantment thesis assumed a separation between rationalized form and enchanted content; digital technology has collapsed this separation. Astrology apps are magical because they are algorithmic: AI personalization lends astrological content scientific authority pre-digital astrology could never achieve.

Emotional Exploitation Capitalism



Emotional exploitation capitalism extends Illouz's (2008) emotional capitalism: user emotional vulnerability is not incidental but the structural foundation of revenue generation. Per-minute billing extracts maximum revenue from users in acute crisis, constituting a systematic vulnerability premium.

Sociotechnical Imaginary of the Forecastable Self

Astrology apps propagate a sociotechnical imaginary of the self as constantly monitored and optimized. As Mishra et al. (2025) observe, this promotes deterministic thinking and makes inequalities more acceptable by providing cosmic rather than systemic accounts of individual circumstances.

REVENUE GENERATION, CONSUMER PROTECTION, AND REGULATORY IMPLICATIONS

The Economics of the Vulnerability Premium

AstroTalk's growth from INR 4.2 crore to INR 319 crore in six years (over 7,500%) illustrates the vulnerability premium model. Unlike therapeutic digital apps where higher dosage predicts benefit (Inkster et al., 2018), here higher dosage predicts greater financial harm.

Regulatory Gaps

The Advertising Standards Council of India's (2024) recognition of dark patterns provides a regulatory foundation for reform. However, existing regulation under the Consumer Protection Act (2019) does not address per-minute billing architectures, undisclosed referral commissions, or the cliffhanger architecture as unfair commercial practices. India's forthcoming Digital India Act should implement mandatory pre-session rate disclosure, prohibition of consultation interruptions designed to extract recharges, and conflict-of-interest disclosure for remedy recommendations, consistent with the approach of the EU Digital Services Act (2022).



CONCLUSION

This paper has examined astrology app commodification through mixed-methods research and twelve theoretical frameworks, finding support across quantitative, qualitative, case-study, and platform-analysis evidence for the argument that astrology apps are instruments of algorithmic re-enchantment and emotional exploitation capitalism.

The regression model ($R^2 = .61$) establishes decision-reliance, ontological insecurity, stress, and Barnum susceptibility as the strongest predictors of expenditure. Nine qualitative themes and twelve composite case studies document harms spanning economic, psychological, and agricultural domains.

Theoretically, the paper contributes three original constructs: algorithmic re-enchantment (rational-technical form intensifies enchantment), the cliffhanger architecture (billing interruption exploiting the Zeigarnik effect), and emotional exploitation capitalism (a business model requiring perpetuation of the anxiety it claims to assuage).

For the sociology of religion, digital spiritual consumption requires frameworks holding simultaneously its authenticity and exploitation. For digital policy, the findings support urgent regulation of billing transparency and cliffhanger prohibition. For the sociology of digital capitalism, astrology apps constitute a paradigm case of surveillance capitalism delivered in the idiom of the divine.

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