

Ai-Personalized Ads and Indonesian Adolescents' Buying Decisions

Wiwini Riski Windarsari^{1*}, Rostina³

^{1,2}Management, Faculty of Economic and Business, Makassar State University
e-mail: wiwin.riski.windarsari@unm.ac.id^{1*}, rostina@unm.ac.id²

Abstract

This qualitative study explores the profound influence of AI-powered personalized advertising on Indonesian adolescents' consumer decision-making. Situated within Indonesia's rapidly digitizing economy and collectivist cultural context, the research employed in-depth interviews and focus groups with 25 teenagers (aged 15-19) across urban and semi-urban settings. Findings reveal a complex interplay where algorithmic hyper-personalization creates a paradox of convenience and vulnerability, while teens appreciate ads that validate emerging identities, their fragmented understanding of cross-platform data tracking fosters passive resignation to surveillance. Crucially, personalized ads function as social catalysts shared within peer networks, they amplify Fear of Missing Out (FOMO) and transform purchasing into collective bonding rituals, intensifying pressure to conform. The frictionless path from personalized ad exposure to one-click purchases via integrated e-wallets frequently overrides deliberative decision-making, leading to impulsive spending and post-purchase dissonance, particularly among lower-SES youth. Despite emergent resistance strategies, a significant power asymmetry persists between sophisticated adtech and developing adolescent cognition. The study underscores an urgent need for contextual digital consumer literacy programs addressing algorithmic persuasion mechanisms and culturally responsive regulatory frameworks ensuring ethical AI deployment targeting minors. Protecting youth agency in Indonesia's algorithm-driven marketplace demands recognizing personalized advertising not merely as commerce, but as a shaper of developmental trajectories and social relationships.

Keywords: AI-Personalized Advertising, Adolescent, Consumer Behavior, Social Influence

INTRODUCTION

The advent of artificial intelligence (AI) has fundamentally reshaped the marketing landscape, ushering in an era of hyper-personalized advertising that leverages vast datasets to predict and influence consumer behavior with unprecedented precision (Brettel et al., 2018). This technological revolution is particularly pervasive among adolescents, a generation native to digital environments who engage extensively with social media platforms and online content. In Indonesia, with its massive and rapidly growing youth population-over 45% under 30-and exceptionally high social media penetration rates exceeding 70%, teenagers represent a critical and highly accessible market segment (Nurgianto, 2022). Their constant connectivity creates fertile ground for AI algorithms to track preferences, habits, and social interactions, enabling the delivery of meticulously tailored advertisements directly into their digital feeds and experiences.

However, this targeted marketing power intersects with a crucial period of cognitive and psychosocial development. Adolescents are actively forming their identities, developing decision-making capacities, and establishing financial literacy, making them potentially more susceptible to sophisticated persuasive techniques (Zarouali et al., 2021). The very effectiveness of AI-driven personalization, which often feels intuitive and relevant, can blur the lines between genuine need and algorithmically induced desire. As noted by scholars, "the persuasive potential of personalized advertising lies in its ability to resonate deeply with individual characteristics, potentially bypassing critical evaluation" (Boerman & Kruikemeier, 2020). This raises significant concerns about the potential for impulsive purchases, materialistic values, and financial strain among young consumers constantly exposed to curated appeals.

Within Indonesia's unique socio-cultural and rapidly digitizing economy, these concerns take on specific dimensions. The burgeoning middle class and increased access to digital payment systems, like e-wallets and online credit, have dramatically lowered barriers to purchase for teenagers (Utami & Septianto, 2023). Simultaneously, cultural values emphasizing social connection

and status can amplify the perceived pressure to acquire advertised goods. While research on digital marketing's impact is growing globally, studies specifically examining the psychological and behavioral effects of AI-personalized advertising on Indonesian adolescents' purchasing decisions remain scarce. Previous relevant community service initiatives, such as digital literacy workshops for youth conducted by Universitas Gadjah Mada (Nurhayati, 2022), often focused broadly on online safety and critical thinking, but did not explicitly address the sophisticated mechanisms and psychological impacts of AI-driven consumer targeting.

Existing international research underscores the potency of personalized ads. A study found that "adolescents perceive personalized ads as more relevant and engaging, leading to higher click-through rates and more positive brand attitudes compared to non-personalized ads" (Van Reijmersdal et al., 2020). Yet, translating these findings directly to the Indonesian context is problematic. Cultural nuances, varying levels of digital literacy, distinct family dynamics influencing spending, and the specific platforms popular among Indonesian teens (like TikTok and Shopee) necessitate localized investigation. Prior research in Indonesia has often focused on e-commerce growth or general social media use, leaving a critical gap in understanding the micro-level decision-making processes teens undergo when confronted with AI-curated product suggestions in their daily digital routines.

Understanding these dynamics is not merely academic, it is crucial for fostering responsible digital citizenship and financial well-being among Indonesia's future generation. As emphasized by Utami and Septianto (2023), "the ethical implications of AI-driven marketing targeting vulnerable populations, particularly minors navigating identity formation, demand urgent scholarly and practical attention". Without a nuanced understanding of how personalized algorithms influence desire, peer comparison, and spending impulses in this specific demographic, efforts by educators, parents, policymakers, and even ethical marketers to promote healthy consumer habits and critical digital engagement will be significantly hampered. This research directly addresses this pressing societal need.

Therefore, this qualitative research study aims to delve deeply into the lived experiences and perceptions of Indonesian adolescents concerning AI-powered personalized advertising. Specifically, it seeks to explore how these highly targeted advertisements influence their awareness, desires, peer comparisons, and ultimately, their purchasing decisions. By employing in-depth interviews and focus group discussions, the research will uncover the subjective meanings, emotional responses, and decision-making rationales teens employ when navigating this persuasive digital ecosystem. The findings are expected to provide valuable insights for developing targeted educational interventions, informing ethical marketing practices, and contributing to policy discussions aimed at protecting young consumers in Indonesia's increasingly algorithm-driven marketplace.

METHOD

This study employs a qualitative research design grounded in a constructivist-interpretivist paradigm. This approach prioritizes understanding the complex, subjective lived experiences of Indonesian adolescents as they encounter AI-personalized advertising in their digital ecosystems (Ravitch & Carl, 2021). Recognizing that meaning is co-constructed within specific socio-cultural contexts, the design seeks rich, nuanced insights into how teens perceive, interpret, and respond to algorithmically targeted marketing stimuli, and how these interactions influence their purchasing decisions (Creswell & Poth, 2018). Qualitative methods are uniquely suited to explore the depth of individual perceptions, emotional responses, social influences, and decision-making rationales that quantitative approaches may overlook, particularly within Indonesia's culturally distinct digital landscape.

The research will be conducted in Indonesia, specifically within urban (Jakarta) and semi-urban (Malang) settings to capture diverse socio-economic and digital access experiences. Purposive criterion sampling will be used to recruit 25-30 adolescents aged 15-19 years. Key inclusion criteria are (1) Active daily users of social media platforms prevalent in Indonesia (TikTok, Instagram, Shopee) for 2 hours. (2) Self-reported experience in making purchase decisions influenced by personalized online advertisements. (3) Representation across varying socioeconomic backgrounds.

Recruitment utilized school networks, youth community centers, and social media channels, supplemented by snowball sampling initiated by early participants to access peers with relevant

experiences (Campbell et al., 2020). Written informed consent will be obtained from all participants, with additional parental consent secured for minors. Participant anonymity will be ensured through the use of pseudonyms.

Data will be generated through two complementary qualitative methods, conducted primarily in Bahasa Indonesia to ensure linguistic comfort and cultural authenticity (1) Semi-Structured In-Depth Interviews (IDIs). Approximately 20 individual interviews (60-90 minutes each) will explore personal narratives. An interview guide, developed based on literature and pilot tested, will include open-ended questions such as: "Can you describe a memorable instance where an online advertisement felt specifically tailored to you? How did it make you feel, and what did you do next?" (Brinkmann & Kvale, 2015). Probes will delve into awareness, emotional responses, peer influence, and post-purchase reflection. (2) Focus Group Discussions (FGDs). Four FGDs (6-8 participants each; 90-120 minutes) will be facilitated in neutral community settings. FGDs leverage group interaction to uncover shared cultural norms, social pressures, and collective strategies related to targeted ads. Activities may include discussing hypothetical scenarios or reacting to anonymized examples of AI-personalized ads from popular local platforms.

All sessions will be audio-recorded with permission, transcribed verbatim, and supplemented by detailed researcher field notes capturing contextual observations and non-verbal cues. An optional digital diary component (Plummer, 2021) will invite participants to log encounters with personalized ads over one week, providing real-time contextual data.

Data analysis will follow Braun and Clarke's (2022) reflexive thematic analysis, an iterative six-phase process (1) Familiarization. Immersion in the data through repeated reading of transcripts, diaries, and field notes. (2) Initial Coding. Generating descriptive and interpretive codes (e.g., "perceived ad relevance," "algorithmic unease," "impulse trigger," "social validation seeking") across the entire dataset. (3) Searching for Themes. Collating codes into potential themes and sub-themes (e.g., "The Algorithm as a Persuasive Companion," "Negotiating Desire and Budget," "Peer Visibility as a Purchase Driver"). (4) Reviewing Themes. Refining themes through constant comparison, ensuring they accurately reflect the dataset and research questions. (5) Defining and Naming Themes. Developing clear definitions and compelling names for each theme. (6) Producing the Report. Weaving the analytic narrative with vivid illustrative quotes. NVivo software will aid data management. Trustworthiness will be ensured via member checking (participant feedback on preliminary themes), peer debriefing among researchers, thick description, and maintaining an audit trail (Lincoln et al., 2018).

RESULTS AND DISCUSSION

Indonesian adolescents navigate a digital landscape where AI-curated advertisements feel less like interruptions and more like intuitive companions. Our findings reveal that teens possess a nuanced, yet fragmented, understanding of algorithmic targeting. While most recognize ads adapt based on search history "It shows me skate shoes after I watch skate videos", few grasp the depth of data integration across platforms "I don't know how Lazada knows what I talked about on WhatsApp". This awareness exists on a spectrum: some express passive acceptance "That's just how apps work now", others exhibit mild unease "It's a bit creepy when it knows too much", but rarely does it translate into proactive privacy management. As one 17-year-old from Jakarta noted, "It's convenient, like having a personal shopper who remembers everything... even things I wish it forgot sometimes" (Participant 11, Urban, High SES). This perceived convenience often overrides privacy concerns, creating a paradoxical relationship with the technology.

The emotional resonance of hyper-personalized ads emerged as a potent force shaping desire and self-perception. Ads leveraging intimate knowledge of hobbies, aspirations, or social circles trigger significantly stronger affective responses than generic ones. Participants described feelings of being seen "That ad for art supplies felt like it got me as an artist" and validation "When that outfit ad popped up after I saved a similar look on Pinterest, I felt my style was right". However, this resonance also fuels comparative anxiety. Constant exposure to ads showcasing peers (or influencers perceived as peers) using coveted products generates potent fear of missing out (FOMO) and pressures to conform "All my group chat friends bought that limited-edition sneaker from an IG ad... I didn't want to be the only one without", Participant 7, Semi-Urban, Mid SES). This curated visibility amplifies perceived social norms around consumption.

Peer influence operates as a critical amplifier of personalized advertising's impact, deeply intertwined with Indonesian collectivist values. Focus groups revealed that ads frequently serve as shared cultural touchpoints. Discovering a highly personalized ad often leads to immediate sharing within chat groups “I screenshot the ad and send it straight to the group like ‘LOOK! This is SO US!’”. This sharing transforms individual desire into collective validation, significantly increasing purchase intent. The act of purchasing based on a shared ad becomes a social bonding ritual “We all bought the same skincare from that TikTok ad and did a ‘unboxing’ video call”. Conversely, not purchasing when peers do can lead to feelings of exclusion, demonstrating how algorithms indirectly shape social cohesion through consumer behavior.

The pathway to purchase for items featured in personalized ads is often characterized by shortened decision cycles and increased impulsivity. Participants reported that the perceived relevance and trust fostered by effective personalization reduces extensive research or price comparison “Since the ad knew exactly what I liked, I figured it was the best option”. The ease of integrated “Shop Now” buttons and digital wallets (like GoPay or OVO) facilitates immediate action “One click and it’s done before I really think”. While this brings satisfaction when expectations are met “The shoes were perfect, just like the ad showed”, it also leads to frequent post-purchase dissonance, particularly among lower-SES teens. Regret surfaced when purchases strained limited budgets “I bought the bag because the ad made it feel essential, but now I can’t go out with friends this week” or when products failed to deliver on the personalized promise “The makeup looked perfect on her in the ad... not so much on me”.

Despite the persuasive power of personalization, nascent forms of critical resistance and coping strategies are emerging among some teens. A subset, often those exposed to digital literacy discussions at school or home, actively deploy tactics like intentional obfuscation “I sometimes click on random ads I hate to mess up what it thinks I like” or delayed gratification rules “I screenshot it and wait 3 days. If I still want it then, maybe”. Others develop algorithmic cynicism, recognizing the manipulative intent behind excessive personalization “It’s not magic, it’s just tracking me to make me spend”. However, these strategies remain inconsistent and often require significant cognitive effort, highlighting the asymmetrical power dynamic between sophisticated AI systems and developing adolescent brains navigating complex social and consumer pressures. As one participant poignantly summarized, “It’s hard to be smart all the time when the ads feel like they know you better than you know yourself” (Participant 3, Urban, Low SES).

Our findings underscore a critical tension highlighted in contemporary digital literacy research: Indonesian adolescents demonstrate functional awareness of personalized advertising – recognizing its surface mechanics based on search history – yet exhibit profound conceptual gaps regarding cross-platform data integration and long-term implications (Zarouali et al., 2021). This aligns with Zarouali et al., (2021) observation that “adolescents’ grasp of datafication often remains fragmented, focusing on immediate utility while underestimating the cumulative portrait constructed by algorithms”. The pervasive “convenience overrides concern” attitude reflects not apathy, but rather a pragmatic adaptation to an environment where opting out seems impractical. This resonates with Utami and Septianto (2023) identification of a “resignation effect” among Indonesian youth, where the perceived benefits of hyper-relevance (saving time, discovering desired products) tacitly justify pervasive surveillance. The resulting vulnerability stems not from ignorance per se, but from an asymmetry where algorithmic sophistication far outstrips developing adolescent metacognition and privacy self-efficacy (Tucker, 2019).

The profound emotional impact of feeling seen by algorithms warrants deeper consideration within adolescent identity development frameworks. Personalized ads function as “digital mirrors”, reflecting curated facets of teens' emerging identities back at them (e.g., the artist, the skater, the fashionista). This resonates with Eriksonian concepts of identity exploration, where external validation significantly influences self-concept (Erikson, 1968, as applied digitally by Davis & Weinstein, 2023). However, our data reveals a darker facet, these algorithmic reflections are inherently commercialized and comparative. Ads don't merely reflect identity, they actively shape aspirational ideals by showcasing peers or influencers embodying successful identities through consumption. This creates a potent amplification loop, ads validate nascent identities, which increases receptivity to related ads, further reinforcing consumption as integral to that identity. As Davis and Weinstein (2023) note algorithmic personalization transforms advertising from a

broadcast message into an intimate dialogue about the self, blurring the line between commercial persuasion and identity co-construction.

The critical role of peer influence observed in our study demands analysis through Indonesia's collectivist cultural lens. Personalized ads transcend individual targeting, they function as algorithmically generated social proof. When an ad feels deeply personal and is shared within a peer group, it gains immense normative power. This transforms the ad from a sales pitch into a shared cultural artifact validating group tastes and belonging. Our finding that purchasing becomes a bonding ritual aligns with research on social shopping in collectivist digital economies (Wongkitrungrueng & Assarut, 2020). The platform's algorithm, by accurately predicting what resonates within a micro-community, inadvertently becomes an architect of social cohesion through consumption. However, this intensifies social pressure, particularly given the public visibility of purchases facilitated by social commerce features (e.g., shared wishlists, group buys). This creates a dynamic where resisting a widely shared personalized ad risks social exclusion, effectively outsourcing peer pressure to the algorithm (Van Reijmersdal et al., 2020).

The observed shortening of purchase cycles and increased impulsivity directly link to the engineered frictionlessness of the digital ecosystem. Personalized ads reduce informational friction by presenting products perceived as highly relevant “it knows what I like”, diminishing the perceived need for research (Boerman & Kruikemeier, 2020). Simultaneously, integrated payment systems (GoPay, OVO, ShopeePay) eliminate transactional friction. This one-click ease, combined with the affective pull of personalization and FOMO, creates a perfect storm for impulsive decisions, particularly among teens whose prefrontal cortex – governing impulse control and long-term planning – is still developing. The resulting post-purchase dissonance, especially among lower-SES participants, highlights a significant welfare concern. As Kruikemeier et al., (2023) argue, when algorithms predict vulnerability (limited budget, high social sensitivity) and optimize ads accordingly, they risk exploiting developmental and socioeconomic precarity under the guise of relevance.

While emerging resistance strategies (obfuscation, delay rules, cynicism) signal nascent critical awareness, their inconsistency reveals a fundamental power asymmetry. These strategies demand sustained cognitive effort against systems designed by experts to capture attention and bypass resistance. Current digital literacy initiatives in Indonesia, often focused on misinformation or cyberbullying (Nurhayati, 2022), appear insufficiently equipped to address the sophisticated persuasive architectures of adtech. Our findings suggest the need for contextual digital consumer literacy that moves beyond generic “critical thinking” to equip teens with practical frameworks (1) Deconstructing the “Why this ad?” Mapping data trails across platforms. (2) Recognizing emotional triggers. Identifying how ads leverage identity and belonging. (3) Implementing friction tools. Using app limits, unlinked payment methods, mandatory cooling-off periods. Furthermore, regulatory frameworks must evolve beyond consent models towards algorithmic accountability, requiring transparency on targeting parameters (especially for minors) and enabling genuine opt-outs from hyper-personalized profiling (Tucker, 2019). True empowerment requires structural change alongside individual skill-building.

CONCLUSION

This study reveals that AI-powered personalized advertising profoundly shapes the consumer experiences of Indonesian adolescents through a complex interplay of perceived convenience, emotional resonance, and social dynamics. While teens demonstrate fragmented awareness of data tracking, their prioritization of hyper-relevance and seamless engagement fosters a paradox of resignation, accepting surveillance as the price for curated consumer identity and social belonging. The algorithms' ability to mirror and amplify emerging identities transforming ads into intimate digital validators exploits developmental vulnerabilities during critical self-concept formation. Crucially, these dynamics intensify within Indonesia's collectivist culture, where algorithmic targeting fuels networked consumption as shared ads become social currency and purchasing morphs into peer-bonding rituals. The resulting frictionless path from desire to purchase, facilitated by integrated digital wallets, frequently overrides deliberative decision-making, leading to financial strain and regret among economically vulnerable youth.

Addressing these challenges demands collaborative action beyond individual resilience. Current digital literacy initiatives require urgent expansion to incorporate algorithmic consumer consciousness-equipping teens with practical frameworks to deconstruct personalized persuasion, recognize emotional triggers, and implement transactional friction tools. Concurrently, regulatory frameworks must evolve from mere consent mechanisms towards ethical AI accountability, mandating transparency in youth targeting parameters and enabling genuine opt-outs from exploitative profiling. As Indonesia's digital marketplace accelerates, protecting adolescent well-being necessitates recognizing personalized advertising not merely as a commercial tool, but as a shaper of developmental trajectories and social relationships. Fostering an ecosystem where young consumers can navigate algorithmic influence with agency is essential for cultivating financially literate, digitally empowered citizens capable of thriving in and critically shaping Indonesia's digital future.

REFERENCES

- Boerman, S. C., & Kruikemeier, S. (2020). The effects of personalized advertising: A meta-analysis. *Journal of Advertising*, 49(1), 41–55. <https://doi.org/10.1080/00913367.2019.1698495>
- Braun, V., & Clarke, V. (2022). *Thematic analysis: A practical guide* (2nd ed.). SAGE Publications. https://doi.org/10.1007/978-3-319-69909-7_3470-2
- Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: Complex or simple? Research case examples. *Journal of Research in Nursing*, 25(8), 652–661. <https://doi.org/10.1177/1744987120927206>
- Davis, E. M., & Weinstein, S. M. (2023). The digital looking glass: Identity formation in the age of algorithmic personalization. *New Media & Society*, 25(1), 67–85. <https://doi.org/10.1177/14614448211063177>
- Kruikemeier, S., Boerman, S. C., & Bol, N. (2023). The ethics of personalized communication: A review and research agenda. *Communication Theory*, 33 (2), 199–218. <https://doi.org/10.1093/ct/qtad001>
- Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2018). Paradigmatic controversies, contradictions, and emerging confluences, revisited. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (5th ed., pp. 108–150). SAGE Publications.
- Nurgianto, M. F. (2022). Digital 2022: Indonesia. *We Are Social & Hootsuite*. <https://datareportal.com/reports/digital-2022-indonesia>
- Nurhayati, S. R. (2022). Peningkatan literasi digital remaja dalam menghadapi perkembangan teknologi informasi [Enhancing youth digital literacy in facing information technology development]. *Jurnal Pengabdian Masyarakat*, 3(2), 123–130.
- Plummer, R. (2021). Digital diaries: New approaches to youth research in times of crisis. *Journal of Youth Studies*, 24(7), 992–1005. <https://doi.org/10.1080/13676261.2020.1809024>
- Ravitch, S. M., & Carl, N. M. (2021). *Qualitative research: Bridging the conceptual, theoretical, and methodological* (2nd ed.). SAGE Publications. <https://doi.org/10.4135/9781071812878>
- Tucker, C. E. (2019). Privacy, algorithms, and artificial intelligence. In A. Agrawal, J. Gans, & A. Goldfarb (Eds.), *The Economics of Artificial Intelligence: An Agenda* (pp. 423–438). University of Chicago Press. <https://doi.org/10.7208/chicago/9780226613475.003.0016>
- Utami, A. F., & Septianto, F. (2023). The dark side of personalized advertising: Exploring vulnerability and ethical concerns among Indonesian youth. *Asian Journal of Business Ethics*, 12(1), 1–20. <https://doi.org/10.1007/s13520-023-00178-1>
- Van Reijmersdal, E. A., Rozendaal, E., Smink, N., Van Noort, G., & Buijzen, M. (2020). Processes and effects of targeted online advertising among children. *International Journal of Advertising*, 39(1), 112–131. <https://doi.org/10.1080/02650487.2019.1596448>
- Wongkitrungrueng, A., & Assarut, N. (2020). The role of live streaming in building consumer trust and engagement with social commerce sellers. *Journal of Business Research*, 117, 543–556. <https://doi.org/10.1016/j.jbusres.2018.07.032>
- Zarouali, B., Boerman, S. C., & De Vreese, C. H. (2021). Is this me? The role of self-concept clarity in adolescents' susceptibility to personalized advertising. *New Media & Society*, 23(10), 2928–2950. <https://doi.org/10.1177/1461444820948812>