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Factors Influencing Consumer Interest and Purchase Decision of Headphones in Thailand: An Empirical Study From Google Trends and Primal Interest Finder Data

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ABSTRACT: This study aims to 1) examine trends in consumer interest in headphones in Thailand during 2020-2025, and 2) analyze the psychological characteristics of the target audience. The research employs secondary data analysis using Google Trends and Primal Interest Finder. Results reveal that consumer interest in headphones fluctuated according to COVID-19 situations. Searches for "headphones" and "online headphones" peaked during 2020-2021 (lockdown period), while "noise-cancelling headphones" surged in 2022 when the country reopened. Furthermore, Primal Interest Finder data uncovered significant psychological characteristics of the target audience: "far from family" and "far from hometown," with an audience size exceeding 215 million globally. This indicates that headphone consumers are predominantly "migrants" living in large cities away from their hometowns. The findings offer strategic implications for businesses in product development and marketing communication targeting this specific consumer segment.
KEYWORDS: Headphones, Google Trends, Primal Interest Finder, Consumer Behavior, Migrants.

I. INTRODUCTION

Personal audio devices, particularly headphones, have become an integral part of daily life in the digital era [1]. Evolving from simple music-listening accessories, headphones now serve multiple purposes including work, study, exercise, travel, and creating personal space in crowded urban environments.

The period 2020-2025 represents a critical juncture for the headphone market due to two major global factors. First, the COVID-19 pandemic (2020-2022) forced people to work and study from home, dramatically increasing demand for headphones for communication and concentration. Second, the post-COVID economic recovery (2022-2025) saw people returning to travel and outdoor activities, boosting demand for wireless and noise-cancelling headphones.

The global headphone market reached $40 billion USD in 2025 and continues to grow steadily [2], particularly in the True Wireless Stereo (TWS) segment. However, despite market size and growth, businesses face challenges in thoroughly understanding their target audience, as consumer behavior has become increasingly complex and rapidly changing.

The emergence of big data and online analytical tools, such as Google Trends (aggregating search data) and Primal Interest Finder (analyzing social media interests), offers researchers opportunities to access consumers' "digital footprints," reflecting genuine interests and needs without relying solely on interviews or surveys [3].

This research aims to utilize these tools to analyze headphone consumer behavior in Thailand during 2020-2025—a pivotal period for the market—hoping to provide businesses and marketers with insights for developing effective strategies.

This study aims to achieve three primary objectives. First, it seeks to examine the trends in Thai consumer interest in headphones during the period 2020-2025 using Google Trends data, with particular attention to how search behavior evolved across the COVID-19 and post-COVID periods. Second, the study aims to analyze the psychological characteristics and related interests of headphone consumers utilizing Primal Interest Finder data, a tool that reveals audience interests on social media platforms. Third, it seeks to identify the key factors influencing Thai consumers' headphone purchase decisions by analyzing related search queries derived from Google Trends.

This study is confined to four specific dimensions. Regarding content scope, the investigation focuses on interest and factors associated with four headphone categories: general headphones, wireless headphones, noise-cancelling headphones, and online headphone purchases. In terms of temporal scope, the study analyzes trends from January 1, 2020, to December 31, 2025, encompassing three distinct periods: the pre-COVID period (early 2020), the COVID-19 pandemic period (2020-2022), and the post-COVID period (2022-2025). Geographically, the study is limited to data analysis at the national level in Thailand, with supplementary provincial comparisons to identify regional variations. Finally, the data source scope is restricted to secondary data obtained exclusively from two digital platforms: Google Trends and Primal Interest Finder.

This research is expected to yield benefits across three domains. From an academic perspective, it contributes to the application of digital data analytics in consumer behavior research, an approach that remains relatively novel within the Thai academic context. From a practical standpoint, the findings offer actionable insights for headphone and audio equipment businesses, enabling more effective strategic marketing planning, product development, and target audience selection, particularly in the evolving post-COVID marketplace. From a social perspective, the study provides a deeper understanding of the role of headphones as a mechanism for creating "personal space" among urban dwellers and migrants, a significant social phenomenon with implications beyond commercial applications

II. LITERATURE REVIEW

2.1 Consumer Behavior Theory

Consumer behavior encompasses the decision-making processes and activities of individuals in evaluating, acquiring, using, and disposing of goods or services [4]. Factors influencing consumer behavior are categorized into four groups:

1.Cultural Factors: Culture, subculture, social class.

2.Social Factors: Reference groups, family, roles, status.

3.Personal Factors: Age, life cycle stage, occupation, income, lifestyle, personality.

4.Psychological Factors: Motivation, perception, learning, beliefs, attitudes.

This research focuses on Psychological Factors, exploring dimensions like "feelings of distance from home" connected to "Compensatory Consumption"—where consumers purchase goods to fulfill unmet psychological needs [5].

2.2 Technology Acceptance Model (TAM)

TAM explains technology adoption through two primary factors [6]:

1. Perceived Usefulness: Belief that technology enhances performance.

2. Perceived Ease of Use: Belief that technology is easy to use.

In the context of rapidly evolving wireless and noise-cancelling headphones, TAM helps explain consumer purchase decisions, especially when combined with trend data from Google Trends.

2.3 Market Segmentation

Classify market segmentation criteria into four types [4]:

1. Geographic Segmentation: Region, city size, population density.

2.Demographic Segmentation: Age, gender, income, occupation, education.

3. Psychographic Segmentation: Social class, lifestyle, personality.

4. Behavioral Segmentation: Purchase behavior, usage frequency, brand loyalty.

This research emphasizes Geographic (from Google Trends) and Psychographic (from Primal Interest Finder) segmentation.

2.4 Big Data in Marketing Research

Big data from online consumer activities reflects genuine behavior and interests without relying on potentially biased self-reports [7]. Google Trends is widely used in social science research for its historical trend data and regional comparisons [3]. Tools like Primal Interest Finder provide access to "interest groups" linked to specific products

2.5 Related Research

Experimental research on mobile music listening shows that listening through headphones creates an “auditory bubble” that changes interpersonal distance: people allow others to come physically closer while feeling psychologically protected, especially with over ear headphones [8].

Ethnographic work on migration and sound argues that sound practices are central to how displaced people negotiate borders, citizenship, and everyday urban life, using listening and sound-making to assert belonging or manage hostile environments [9]. Google Trends provides relative search volume (RSV) for a term (0–100) by time and region, normalized by total search traffic in that area and period 3. This allows comparison of interest in “headphone(s)” across countries, seasons, or before/after marketing events [10]. Futuresource Consulting reported the mass-premium segment ($200-$600) as the fastest-growing, reflecting willingness to pay for quality [2].

2.6 Conceptual Framework

Based on the literature review, the conceptual framework is:

Independent Variables (Analyzed Data):

1. Google Trends Data:Time series trends, Geographic distribution, Related queries

2. Primal Interest Finder Data: Audience size, Primary and related interests, Psychographic characteristics.

Dependent Variables (Explained):

1. Characteristics of headphone target audience in Thailand.

2. Factors influencing headphone purchase decisions.

3. Future market trends

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III. RESEARCH METHODOLOGY

3.1 Data Collection

This study employs quantitative secondary data analysis from two online public sources: Google Trends and Primal Interest Finder.

Google Trends Data

1. Accessed trends.google.co.th.
2. Set time period: January 1, 2020 – December 31, 2025.
3. Set location: "Thailand".
4. Searched keywords: "หูฟัง" (headphones), "หูฟังไร้สาย" (wireless headphones), "หูฟังตัดเสียงรบกวน" (noise-cancelling headphones), and "หูฟัง ออนไลน์" (online headphones).
5. Recorded annual/monthly trend graphs, regional comparison graphs, and related queries

Primal Interest Finder Data

1. Accessed Primal Interest Finder website.
2. Searched keyword: "**หูฟัง" (**headphones).
3. Recorded 45 related ad interest suggestions.
4. Recorded audience size for each interest.
5. Categorized interests by characteristics and relevance

3.2 Data Analysis

Descriptive analysis and content analysis were employed:

1. Google Trends Analysis:
   - Time trend analysis: Divided into COVID-19 period (2020-2022), transition period (2022-2023), and post-COVID period (2023-2025).
   - Regional analysis: Ranked provinces by search interest.
   - Related query analysis: Categorized by specifications, price, brands, and purchase channels.
2. Primal Interest Finder Analysis:
   - Audience size comparison.
   - Interest categorization (technology, psychology, arts/entertainment, lifestyle, sports, education).
   - Psychographic connection analysis, particularly feelings of distance from home

IV. RESULTS

4.1 Google Trends Analysis Results (2020-2025)

4.1.1 Time Trend Analysis

Table 1 presents the annual search interest values for headphone-related keywords in Thailand during the period 2020-2025. The data reveals distinct patterns corresponding to the progression of the COVID-19 pandemic and subsequent recovery period.

Table 2 The analysis of the first period reveals significant shifts in consumer search behavior during the height of the pandemic. In 2020, which marked the onset of widespread lockdown measures and the transition to work-from-home (WFH) arrangements, the keyword "Headphones" reached its maximum value of 100 shown that:

2020: "Headphones" and "Online Headphones" peaked (100 and 82), reflecting demand for work/study-from-home and online purchasing.

2021: "Wireless Headphones" peaked at 95, showing adaptation to long-term work-from-home, while "Noise-cancelling Headphones" grew significantly (45 to 62).

Table 3 The year 2022 represented a critical transition phase as Thailand began relaxing lockdown measures and reopening economic activities. This period witnessed a notable shift in consumer search priorities shown that:

"Noise-cancelling Headphones" surged to 85 (+23), coinciding with reopening and increased travel/outdoor activities.

"Online Headphones" declined, suggesting a return to in-store purchases

Table 4 During the final three years of the study period, search interest across all keywords stabilized at levels substantially higher than pre-pandemic baselines, suggesting enduring behavioral changes rather than temporary pandemic-related fluctuations shown that:

All keywords stabilized or slightly declined but remained high compared to pre-COVID levels.

Decline in "noise-cancelling headphones" (2024-2025) may indicate technology becoming standard.

"Wireless headphones" maintained high interest, showing established preference.

4.1.2 Regional Analysis

Table 5 The geographic distribution of headphone-related searches across Thailand reveals significant patterns that align with the study's migrant hypothesis. Table 3 presents the provinces with the highest search interest values for the keyword "headphones" during the 2020-2025 period shown that:

Bangkok Metropolitan Region: High interest, consistent with economic/educational centers attracting migrants.

Major Provincial Hubs: Chiang Mai (north), Chonburi (industrial), Phuket (tourism), Songkhla (border trade), Khon Kaen (northeast hub).

Provinces with major universities or industrial estates show higher interest, supporting the "migrant" hypothesis.

4.1.3 Related Queries Analysis

Table 6 presents a comprehensive categorization of related search queries associated with headphone-related keywords during the 2020-2025 period.

1. Wireless as Standard: Bluetooth/True Wireless queries appear consistently, showing wireless as primary expectation.

2. Price Sensitivity: Frequent price-related searches ("cheap," "good and cheap") indicate Thai consumers prioritize price.

3. Brand Concentration: Sony, JBL, Samsung top searches; Xiaomi, Soundcore as budget options; Chinese brands (Haylou, Baseus) emerge 2023-2025.

4. Online Purchase Behavior: Online queries peaked during lockdowns, remained important for price comparison and reviews post-2022

Table 1. Annual Search Interest Values for Headphone Keywords (2020-2025)

Year	Headphones	Wireless Headphones	Noise-cancelling Headphones	Online Headphones	Key Events
2020	100	78	45	82	COVID-19 peak, lockdown, WFH
2021	98	95	62	79	COVID-19 continues, vaccines roll out
2022	92	88	85	65	Country reopens, travel resumes
2023	89	85	83	58	Economic recovery
2024	86	82	79	52	Market stabilizes, AI headphones emerge
2025	84	80	76	48	Mature market, high competition

Table 2. Analysis by Period: Period 1: COVID-19 Peak (2020-2021)

Keyword	2020	2021	Change
Headphones	100	98	-2
Wireless Headphones	78	95	+17
Noise-cancelling Headphones	45	62	+17
Online Headphones	82	79	-3

Table 3. Analysis by Period: Period 2: Transition (2022)

Keyword	2021	2022	Change
Headphones	98	92	-6
Wireless Headphones	95	88	-7
Noise-cancelling Headphones	62	85	**+23**

Online Headphones	79	65	-14

Table 4. Analysis by Period: Period 3: Post-COVID (2023-2025)

Keyword	2023	2024	2025	Trend
Headphones	89	86	84	Stabilizing high
Wireless Headphones	85	82	80	Stabilizing high
Noise-cancelling Headphones	83	79	76	Slight decline
Online Headphones	58	52	48	Continued decline

Table 5. Top 10 Provinces with Highest "Headphones" Search Interest

Rank	Province	Relative Search Interest
1	Bangkok	100
2	Chiang Mai	87
3	Chonburi	82
4	Nonthaburi	79
5	Samut Prakan	76
6	Pathum Thani	73
7	Phuket	71
8	Songkhla	68
9	Khon Kaen	65
10	Chiang Rai	62

Table 6. Categorization of Related Search Queries

Category	Examples	Frequency	Peak Period
Specifications	Bluetooth headphones, True Wireless, Noise Cancelling, waterproof	Very High	Throughout

Price	wireless headphone price, cheap headphones, good and cheap	Very High	Throughout
Brands	Sony, JBL, Samsung, Apple, Xiaomi, Soundcore	High	Throughout
Purchase	buy headphones online, headphone shop near me, Shopee, Lazada	Medium	Peak 2020-2021

4.2 Primal Interest Finder Analysis Results

4.2.1 Primary Interests and Audience Size

Table 7 presents the primary interests and corresponding audience sizes identified through Primal Interest Finder analysis using the search term **"หูฟัง" (**headphones). These data represent global audience estimates, providing a macro-level perspective on the characteristics of headphone-interested consumers.

The primary interest category, "Headphones," represents the core audience of individuals who have demonstrated explicit interest in headphone-related content on social media platforms.

Audience Size Analysis:

Direct Headphone Interest: 313.6 million (global), reflecting widespread interest.

Tejor Phone Group: 1.14 million (budget mobile users), showing market spans all income levels.

4.2.2 Related Interests Categorization

Beyond the primary interests identified in Table 7, Primal Interest Finder revealed 45 related interest suggestions associated with the search term "หูฟัง" (headphones). These related interests provide a more nuanced understanding of the lifestyle, values, and behavioral patterns that characterize headphone consumers. Table 8 presents these interests organized into thematic categories.

Category 1: Technology & Devices (12 Interests, Audience Size: 10-300 million). The technology and devices category encompasses interests related to the broader technology ecosystem in which headphones are situated. The presence of these interests reveals that headphone consumers are generally technology-engaged individuals who view headphones as one component of a larger personal technology portfolio.

Category 2: Psychology & Emotional States (8 Interests, Audience Size: 200-215 million).
The psychology and emotional states category represents the most distinctive and theoretically significant finding of this analysis. With audience sizes approaching 215 million for the core interests within this category, these emotional states characterize a substantial proportion of headphone consumers.

Category 3: Arts & Entertainment (10 Interests, Audience Size: 50-150 million). The arts and entertainment category reveals the content consumption patterns of headphone consumers, indicating what they listen to and engage with through their headphone devices.

Category 4: Lifestyle & Travel (8 Interests, Audience Size: 30-100 million). The lifestyle and travel category reveals the living arrangements, mobility patterns, and daily routines that characterize headphone consumers.

Category 5: Sports & Fitness (4 Interests, Audience Size: 20-50 million). The sports and fitness category, while smaller than other categories, reveals a specialized segment of headphone consumers with distinct usage contexts and product requirements.

Category 6: Education & Learning (3 Interests, Audience Size: 10-30 million)
The education and learning category reveals the role of headphones in academic contexts, particularly relevant for the substantial student migrant population identified in the spatial analysis.

4.2.3 Psychographic Connection

The most significant finding is the connection between headphone interest and feelings of being "far from family" and "far from hometown":

1. Comparable Sizes:

- "Far from family": 215,400,351
- "Far from hometown": 215,441,308
- "Headphones": 313,595,374

The similarity (215 million) and high proportion (~68% of headphone interest) strongly suggests headphone consumers are predominantly "migrants" living away from home.

2. Psychological Interpretation:

Migrants' interest in headphones can be explained by:

- Creating Personal Space: In new environments (dorms, condos, shared housing), headphones create "personal audio space" (Smith et al., 2022).

- Connecting with Home: Familiar music/podcasts reduce homesickness.
- Stress Escapism: Adapting to new environments causes stress; headphones offer easy escape.
- Symbol of Urban Identity: Using headphones in public signifies "urban identity" and desire for privacy.

3. Consistency with Google Trends:

Regional analysis showing highest searches in Bangkok, Chiang Mai, Chonburi (major work/study destinations) aligns with this finding, as these are migrant destinations nationwide.

Table 7. Primary Interests and Audience Size for "Headphones"

No.	Interest	Audience Size
1	Headphones	313,595,374
2	Facebook Access (Mobile): Tejor Phone	1,141,873
3	Far from Family	215,400,351
4	Far from Hometown	215,441,308

Table 8. Categorization of Related Interests for "Headphones"

Category	Count	Examples	Approx. Audience Size
Technology/Devices	12	Headphones, Tejor Phone, mobile accessories	10-300 million
Psychology/Feelings	8	Far from family, far from hometown	200-215 million
Arts/Entertainment	10	Actors, music, concerts, movies	50-150 million
Lifestyle/Travel	8	Travel, tourism, accommodation, dormitories	30-100 million
Sports/Exercise	4	Fitness, running, workout	20-50 million
Education	3	Students, online learning, library	10-30 million

V. DISCUSSION AND CONCLUSION

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VI.

5.1 Summary of Findings

This study analyzed headphone consumer interest in Thailand during the period 2020-2025 using two complementary data sources: Google Trends for search behavior analysis and Primal Interest Finder for psychographic profiling. The findings are organized across three dimensions: interest trends, target audience characteristics, and purchase decision factors.

Regarding headphone interest trends, the analysis revealed distinct patterns corresponding to the progression of the COVID-19 pandemic. During the peak pandemic period of 2020-2021, searches for "headphones" and "online headphones" reached their highest values, reflecting the urgent demand for personal audio devices as Thai consumers transitioned to work-from-home and online learning arrangements. The subsequent transition period of 2022, marked by the reopening of economic activities, witnessed a surge in searches for "noise-cancelling headphones," indicating that consumers sought noise isolation capabilities as they resumed travel and returned to crowded public spaces. Throughout the post-COVID period of 2023-2025, search interest across all categories stabilized at levels substantially higher than pre-pandemic baselines, with "wireless headphones" maintaining the strongest sustained demand. This pattern suggests that wireless technology has transitioned from a novelty feature to a standard consumer expectation, while online purchasing behavior, though declining from its pandemic peak, has remained crucial for price comparison and product research.

Concerning target audience characteristics, the spatial analysis revealed that headphone search interest concentrates in Thailand's economic and educational centers, particularly the Bangkok Metropolitan Region, Chiang Mai, Chonburi, and Phuket. These provinces serve as primary destinations for internal migration, attracting students, industrial workers, and service sector employees from across the country. More significantly, the psychographic analysis using Primal Interest Finder uncovered a critical finding: headphone consumers demonstrate a strong connection to interests related to being "far from family" and "far from hometown," with global audience sizes exceeding 215 million for each of these interests. Given that the core headphone interest audience comprises approximately 313.6 million individuals, this suggests that nearly 69 percent of headphone consumers are predominantly migrants living in large cities away from their places of origin.

Regarding purchase decision factors, analysis of related search queries revealed four primary categories ranked by importance. Technical specifications, particularly wireless connectivity features such as Bluetooth and True Wireless, emerged as the most frequently searched category, confirming that functionality drives consumer research. Price sensitivity constituted the second most prominent category, with queries such as "good and cheap" and "headphones under 1000 baht" indicating that Thai consumers seek value rather than simply the lowest price. Brand-related queries, dominated by established names such as Sony, JBL, and Samsung with emerging Chinese brands gaining ground during 2023-2025, represented the third category. Purchase channel queries, particularly those related to e-commerce platforms Shopee and Lazada, constituted the fourth category, peaking during the pandemic but sustaining relevance for the research phase of the consumer journey.

5.2 Discussion

The findings of this study demonstrate substantial alignment with established theoretical frameworks and prior research. With respect to Consumer Behavior Theory [4], the identification of psychological factors—specifically the strong connection between headphone interest and feelings of being far from family and hometown—aligns with the theory's emphasis on psychological determinants of consumer behavior. The application of Compensatory Consumption theory [5] provides a compelling explanation for this relationship: migrant consumers may purchase headphones to compensate for the psychological deficits associated with displacement, addressing feelings of loneliness through audio content that provides comfort or enabling the creation of personal auditory space in unfamiliar environments.

Regarding the Technology Acceptance Model (TAM) [6], the rapid adoption of wireless and noise-cancelling headphone technologies observed in this study aligns with the model's emphasis on perceived usefulness. Consumers adopted wireless headphones because they perceived the convenience of cable-free operation as useful for multitasking during remote work, while noise-cancelling headphones were adopted because consumers perceived their utility in managing the auditory challenges of shared living spaces during the pandemic and crowded public spaces during the reopening period.

The findings also demonstrate consistency with prior research. Documented the tendency of migrant populations to purchase high-quality headphones as tools for creating personal space and managing the psychological challenges of displacement, a pattern that resonates strongly with the Thai context documented in this study. Furthermore, [2] report on global market growth during COVID-19 and the subsequent transition to mass-premium segments aligns with the elevated and sustained interest levels documented in this study.

5.3 Recommendations for Future Research

Several directions for future research emerge from the limitations and findings of this study. Comparative period studies that systematically compare pre-COVID, COVID, and post-COVID headphone usage patterns would help distinguish between temporary pandemic-related changes and permanent shifts in consumer behavior. Primary data collection through surveys and interviews specifically targeting migrant populations would validate and expand upon the secondary data findings presented here, enabling the development of more nuanced understanding of migrant consumption patterns. In-depth studies examining the specific "sounds" that migrants prefer during different adaptation stages—music genres, podcast topics, language content—would provide deeper psychological insight into how audio content supports the migration experience. The methodological approach employed in this study—combining Google Trends and Primal Interest Finder—could be fruitfully applied to other product categories potentially linked to homesickness, such as local food seasonings, hometown souvenirs, and regional content streaming services. Finally, longitudinal studies examining how headphone usage and purchase behavior change with migration duration—comparing migrants in their first month versus those established for one to two years or five years—would illuminate the evolving role of consumption in the adaptation process.

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