

Drivers of artificial Intelligence–powered hearing aids by individuals: an in-depth qualitative investigation

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Abstract

Purpose – This study examines the drivers of adoption of artificial intelligence (AI)-powered hearing aids. These innovative, technology-driven aids offer several features and benefits that can enhance users' quality of life. Their features, along with the known limitations of traditional hearing aids, suggest that AI-powered hearing aids should gain widespread adoption. However, their adoption has not been as expected. Due to the nascent nature of the area, research findings explaining this anomaly or the drivers of adoption are limited.

Design/methodology/approach – This study employs a qualitative research design, focusing on patients, i.e. individuals with hearing impairments currently using AI-powered hearing aids, to identify the drivers of adoption of AI-powered hearing aids. The final dataset comprising 33 responses was analyzed using the grounded theory approach to identify 45 open codes, 10 axial codes and 5 selective codes representing key AI-powered hearing aid adoption drivers from the patient perspective.

Findings – The selective codes, representing the five themes that broadly shape adoption, are: (1) intelligent environment management, (2) superior user experience, (3) enhanced social inclusion, (4) integrated wellness-well-being ecosystem and (5) technological superiority. The axial codes, representing sub-themes within each theme, reveal that, unlike the traditionally used hearing aids that amplify sound, AI-powered aids provide adaptive noise management and environment detection, reduction in cognitive fatigue and physical strain, personalized learning capabilities, improved communication and comfort in social and professional settings, physical safety, health monitoring, smart connectivity, superior voice processing and other advanced features like transcription.

Originality/value – Based on these findings, the study provides a “foundational-enabling-enhancing” framework. This framework leverages the technological superiority of AI-powered hearing aids and their ability to create an integrated well-being-wellness ecosystem to drive adoption and continued use. The study's findings and framework extend the innovation management literature, providing valuable insights for healthcare professionals, manufacturers and scientists in developing user-centered AI-powered hearing solutions that address the multifaceted quality-of-life challenges faced by people with hearing impairment.

Keywords Noise cancellation, Speech recognition, Hearing aid, Qualitative study, Grounded theory

Paper type Research article

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1. Introduction

Hearing loss and impairment have long been among the major healthcare and well-being challenges worldwide. The number of people suffering from the impairment has increased over the decades, with age-related hearing loss rising by more than 100% from 1990 to 2021 (Dong *et al.*, 2025). Research indicates that the number can be expected to rise further. For example, according to the World Health Organization (WHO), by 2050, nearly 2.5 billion people worldwide are expected to experience some form of hearing-related problem (WHO, 2025). Hearing loss and impairment are multidimensional problems affecting many people across various demographic segments and social strata (e.g. Zhu *et al.*, 2025; Li *et al.*, 2025). A key challenge associated with hearing issues is that it produces several consequential problems, such as diagnostic errors, psychological stress, social stigma and disconnection from the mainstream (e.g. Lu *et al.*, 2024). Moreover, it increases the risk of all-cause mortality, as well as specific health challenges such as cardiovascular disease, cancer and overall mortality (Jia *et al.*, 2025; Dement *et al.*, 2025). The issue becomes even more complex due to the interaction of multiple factors, including genetic tendencies, lifestyle, job profile and living environment, all of which individually and collectively increase their prevalence and severity in individuals with different sociodemographic profiles (Jung *et al.*, 2024; Tran *et al.*, 2024). The implications are so wide-ranging that not only are the people suffering from impairment impacted but also their families (e.g. Shastri *et al.*, 2025).

Such complex dynamics have made the issue of hearing impairment more severe over the years. The severity of the challenge in dealing with hearing impairment is driven by several factors. First, from a medical perspective, the issue is the right diagnosis and the extent of affliction. Prior studies have discussed this issue; for example, Han *et al.* (2020) contended that tinnitus typewriter can be, at times, misdiagnosed as another issue, such as middle ear myoclonic tinnitus, given the similarity of symptoms. Also, from a medical perspective, the healthcare pathway for this impairment is often quite challenging to navigate and manage (Rashidi *et al.*, 2025). Second, from an individual perspective, people suffering from hearing-related issues face emotional and mental hurdles and social challenges, sometimes due to a delay in language and speech development (Schindler *et al.*, 2022) and other times due to depression (Huang *et al.*, 2025). This impacts their relationships and quality of life.

Due to the severe consequences, hearing-related impairments require multidisciplinary interventions such as cochlear implants (Radeloff *et al.*, 2024). Of these, hearing aids are the most used interventions, especially in cases where hearing loss is mild to moderate (Thomas and Völter, 2023). As a result, researchers have examined factors that drive or inhibit the adoption of hearing aids (Knoetze *et al.*, 2023). These factors include stigma, acceptance, ease of access and functionality (Aldè *et al.*, 2025; Hooper *et al.*, 2022).

Although hearing aids are very useful in reducing the impact of hearing issues, people are not using these devices as much as they should (Desai *et al.*, 2024). Over the years, studies have identified several reasons for this, including the occlusion effect (Lerner, 2019), difficulties in understanding certain voices (Bennett *et al.*, 2020) and issues with signal amplification (Thorpe and Dussard, 2018). Researchers have also explored solutions to these issues, such as digital hearing aids (Thorpe and Dussard, 2018), as well as the development of intelligent assistive technologies to support individuals with hearing impairments (Kim *et al.*, 2024).

Although hearing aids have evolved over the years, users continue to face numerous challenges that can make it difficult to be satisfied and use them regularly. It is believed that integrating artificial intelligence (AI) into hearing aid technology, such as AI-integrated speech processors, can address these challenges by significantly enhancing how people perceive sound (Sahoo *et al.*, 2024). Research indicates that AI-driven speech enhancement systems, which utilize deep neural networks to process audio-visual data (Chen *et al.*, 2024) and machine learning algorithms to optimize speech based on the environment (Fabry and Bhowmik, 2021), are transforming the way users experience sound.

Since the technology is still new and evolving, research on whether the transformative features of AI-powered hearing aids motivate individuals to adopt them is limited, creating a

gap in the understanding of whether hearing-impaired individuals actually find them useful and why. This study argues that, since these devices are not only considered superior sound amplifiers but also sophisticated health-monitoring partners, understanding the drivers of adoption is critical. It could provide early feedback to medical professionals, policymakers and device manufacturers to take the right steps for driving their widespread adoption. As a result, the objective of this study is to address the limitations of existing research findings on the drivers of AI-powered hearing aid adoption. Since the topic has been under-explored so far, the study adopts an exploratory qualitative approach to identify the drivers from the perspective of patients, i.e. individuals with hearing impairment.

Responses were collected from 33 individuals using an AI-powered hearing aid to understand their drivers of adoption and analyzed using the grounded theory approach, based on Strauss and Corbin's (1990) methodology.

The study makes two notable contributions: (1) it offers a detailed and systematic exploration of the reasons why patients opt for AI-integrated hearing aids. By examining user adoption, the study identifies the primary reasons that drive adoption. In addition, it also provides the basis for a conceptual model rooted in actual experiences. Using a qualitative research design can help identify different drivers of adoption that were not discussed in prior studies. By understanding these drivers, we can better inform the development of hearing aids that truly meet the needs of users. (2) It focuses on AI-powered hearing technology, an innovative field within healthcare research. By adopting a user-centered approach, the study enhances our academic and practical understanding of how technology can inform the design of assistive hearing devices to better meet human needs.

The remainder of the paper comprises background literature in [Section 2](#), the methodological approach in [Section 3](#), the results of data analysis in [Section 4](#), a discussion of the findings in [Section 5](#) and conclusion in [Section 6](#).

2. Background literature

The challenge of hearing loss and impairment has increased over the years ([Dong et al., 2025](#)). This has led to increased discussion on interventions and treatment, particularly the use of hearing aids ([Morvan et al., 2024](#)). Traditionally, autonomous motivation, hearing challenges and perceived hearing difficulties have been positively linked to the adoption of hearing aids ([Ridgway et al., 2015](#)). More recently, researchers have discussed several adoption and continued usage drivers, including factors such as the degree of impairment, patients' personality traits, and financial position, as well as post-usage satisfaction factors such as age, duration of use and device functionality (e.g. [Pouyandeh and Hoseinabadi, 2019](#); [Mothemela et al., 2024](#)). Furthermore, individuals who recognize the significant benefits of hearing aids, such as improved communication and a better quality of life, are more likely to use them, even when finances are tight ([Windmill, 2022](#)). Similarly, individuals with strong support networks and a genuine belief in the effectiveness of technology are more likely to adopt hearing aids ([Jorbonyan et al., 2021](#)).

At the same time, past studies suggest that the adoption and use of hearing aids are challenging due to issues such as fragility, discomfort and poor hearing quality ([Avierinos et al., 2024](#)). Researchers also observed non-usage or limited usage of hearing aids post-adoption due to several factors, including both social and economic factors (e.g. [Gahlon et al., 2024](#)).

Of late, technological innovations such as AI technologies have been transforming support for people with disabilities ([Malviya and Rajput, 2025](#)). The application of AI in hearing aids has been particularly transformative, offering several features, including customizable devices, voice processing, brain-controlled systems and methods to enhance speech understanding in noisy environments ([Umashankar et al., 2021](#)). These devices utilize machine learning algorithms, such as Bayesian optimization, to enhance sound quality based on user feedback and preferences ([Balling et al., 2021](#)). Such integration provides valuable user data that enhance scientific knowledge and promotes ongoing advancements in the field

([Balling et al., 2021](#)). It also significantly improves the hearing experience by automatically adjusting to different listening environments, thereby minimizing background noise and enhancing speech clarity ([Fawzy et al., 2023](#)) and providing personalized sound adjustments tailored to their individual needs ([Sylopp and Bruns, 2023](#)). Additionally, contemporary hearing aids equipped with advanced sensors and AI capabilities enhance speech comprehension and monitor overall health and wellness ([Fabry and Bhowmik, 2021](#)).

With the integration of AI in hearing aid technology as a groundbreaking innovation in audiological care ([Sahoo et al., 2024](#); [Chen et al., 2024](#)), the market for hearing aids is undergoing rapid change. Hearing aid developers are designing their products to meet these insights more frequently, in order to keep pace with a market that is constantly evolving ([Brice and Almond, 2023](#)). The expectation is that individuals with hearing impairment would adopt this hearing aid. In this regard, researchers have developed comprehensive frameworks to aid adoption by enhancing the understanding of hearing aid users and improving the effectiveness of hearing rehabilitation ([Iliadou et al., 2022](#)). Researchers argue that the emphasis on personalization and a consumer-centered approach, driven by enhanced understanding of user behavior and expectations ([Carr and Kihm, 2022](#)), and self-adjusted sound processing which improves overall usability and user satisfaction ([Chitra Thara et al., 2025](#); [Sylopp and Bruns, 2023](#)), can be expected to improve quality of life and, hence, adoption. Furthermore, features such as Bluetooth connectivity, wireless charging and seamless integration with other smart devices can greatly enhance their appeal to users ([Palkar and Dias, 2024](#)).

In fact, with AI sound processing and features that perform multiple tasks, the stigma associated with using hearing aids could be reduced, and the overall user experience can be improved ([Madara and Bhowmik, 2024](#)). This sense of empowerment is particularly valuable for tech-savvy individuals and could lead to higher acceptance levels of technology ([Keidser et al., 2019](#)). Healthcare professionals can also impact the adoption, as they recognize the benefits that AI brings to hearing healthcare ([Oremule et al., 2024](#)). Finally, context can also play a significant role in the adoption of new ideas or technologies. For example, AI-powered hearing protection technology could be beneficial in noisy construction environments if it effectively balances the need to preserve auditory awareness with managing background noise ([Huang and Le, 2020](#)).

Although the preceding discussion demonstrates that psychological, technological and practical factors can influence the adoption of AI-powered hearing aids, despite presenting several arguments in favor of adopting AI-powered hearing aids, the literature does not provide prior empirical evidence on the drivers of adoption based on patients' experiences. The present study addresses this research gap.

3. Methodology

3.1 Research design

This study employed a qualitative research design to investigate patients' drivers for adopting AI-powered hearing aids. The research design uses written interviews to collect qualitative data. The framing of questions was informed by existing literature on hearing aid adoption, social media discussions, and online news articles from popular media. The preliminary set of questions was optimized by consulting an expert ([Cao, 2025](#)). The response was analyzed by coding the data to identify open, axial, and selective codes. To ensure the originality and robustness of study findings, data were collected until theoretical saturation was reached, i.e. data were collected and coded until they led to the emergence of new categories/concepts. The process followed to complete the methodology is given in [Figure 1](#).

3.2 Study participants and data collection

Since the study's objective is to present patients' perspectives on the drivers of AI-powered hearing aid adoption, the study recruited individuals who use these hearing aids to help them

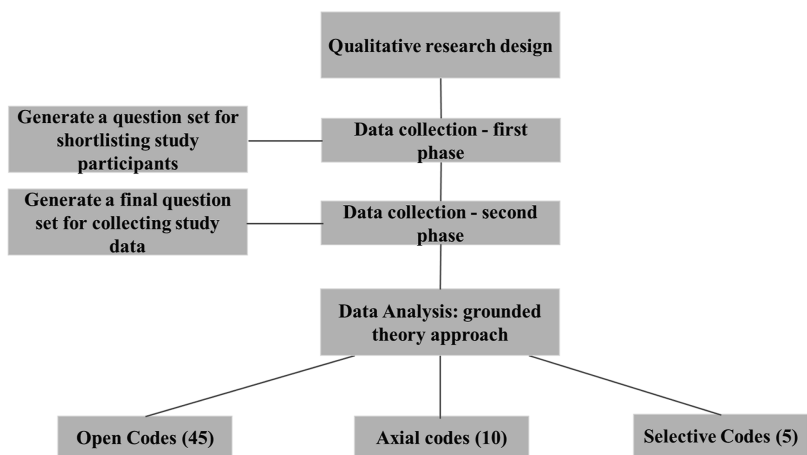


Figure 1. Study methodology

overcome their hearing challenges. The participants were recruited through an online research platform by conducting a two-phase study. In the first phase, people with hearing disability were invited to answer the following questions: (1) Briefly discuss and explain your hearing problem/disorder here (e.g. hearing loss, hearing impairment, etc.) (2) Are you currently using any hearing aid? What kind of hearing aids is it? (3) What is your frequency of hearing aid (s) use? (4) How long have you been using hearing aid (s)? (5) Have you heard about AI being used in hearing aids? (6) Are you open to the idea of AI features being integrated into hearing aids? (7) Have you used any AI-enabled features in a hearing aid? And (8) Has your doctor discussed integrating AI features into a hearing aid?

Six hundred twenty-six hearing-impaired people responded in the study's first phase, and 59 confirmed that they were using AI-powered hearing aids. Their profiles are given in Table 1. Since the objective of this study is to examine the drivers of adoption from the patient's perspective, 59 patients were recruited for participation in Phase 2 of the study. Participation in both phases was voluntary, and monetary remuneration was paid in accordance with the platform's policy.

In phase 2, the 59 participants were invited to participate in the written interview, which was conducted through the same platform. The invited participants were asked to answer qualitative questions about: (1) The reasons why they started using the AI-powered hearing aids? (2) What did they like in general about AI-powered hearing aids? (3) What health benefits did they perceive to get from the use of an AI-enhanced hearing aid? (4) How did their AI-enhanced hearing aid function in different hearing environments? (5) How did their AI-enhanced hearing aid help them in their day-to-day communication and lifestyle? (6) How was their use of AI-enhanced hearing aid impacted by their comfort with technology? (7) Were there any preventive health features that motivated them to choose AI-powered hearing aids? (8) What are the additional features/functions/affordances that you see in the AI-powered hearing aids that you feel are missing in the traditional hearing aids? and (9) Which AI customization options are most meaningful and useful to you?

Of the 59 invited, 33 responses were received. The profile details of these 33 respondents are provided in Table 2.

3.3 Data analysis

To understand the respondents' thoughts on AI-powered hearing aids, a robust three-tiered coding approach was employed, where open codes, as suggested in grounded theory (Glaser

Table 1. Shortlist of patients using AI-powered hearing aids

S.No.	Age in years	Gender	Education	Job title/position/ designation	Frequency of hearing aid (s) use?
1	25–30	Female	Undergraduate	Business administrator	Many times, a week
2	25–30	Male	Undergraduate	Writer	Daily
3	25–30	Female	Professional Degree	Doctor	Daily
4	25–30	Female	Professional Degree	Doctor	Daily
5	25–30	Non-binary	Undergraduate	General worker	Daily
6	25–30	Female	Undergraduate	Financial consultant	Daily
7	25–30	Female	Professional Degree	Doctor	Daily
8	25–30	Male	Postgraduate	Data Analyst Specialist	Few times a week
9	25–30	Male	Professional Degree	Data Analyst	Few times a week
10	25–30	Male	Postgraduate	Senior Manager	Many times, a week
11	25–30	Female	Postgraduate	Individual consultant	Daily
12	25–30	Female	Postgraduate	Data Analyst	Few times a week
13	25–30	Female	Professional Degree	Correctional nurse	Daily
14	25–30	Female	Postgraduate	Human resource	Many times, a week
15	25–30	Female	High School	Samples	Daily
16	25–30	Female	Undergraduate	Chat assistant	Daily
17	25–30	Female	Postgraduate	Manager	Many times, a week
18	25–30	Female	Postgraduate	Manager	Daily
19	25–30	Female	Professional Degree	Editor	Few times a week
20	25–30	Female	Undergraduate	Supervisor	Daily
21	25–30	Female	Undergraduate	Assistant	Daily
22	31–35	Female	Professional Degree	Accountant	Daily
23	31–35	Male	Undergraduate	Mid manager	Many times, a week
24	31–35	Female	Postgraduate	Supervisor	Daily
25	31–35	Female	Postgraduate	Supervisor	Daily
26	31–35	Female	Professional Degree	Supervisor	Daily
27	31–35	Male	Professional Degree	IT Operations Manager	Once in a week
28	31–35	Male	Professional Degree	Financial Advisor	Daily
29	31–35	Male	Undergraduate	Marketing	Daily
30	31–35	Male	Postgraduate	IT Assistant	Many times, a week
31	36–40	Female	Professional Degree	Education	Once in a week
32	36–40	Male	Professional Degree	Doctor	Few times a week
33	36–40	Male	Professional Degree	Doctor	Few times a week
34	36–40	Male	Postgraduate	Architect	Few times in a month
35	36–40	Female	Postgraduate	Financial Analyst	Many times, a week
36	41–45	Female	Undergraduate	Supervisor tier 3	Many times, a week
37	41–45	Female	Professional Degree	Manager	Few times a week
38	41–45	Female	Postgraduate	Manager	Few times a week

(continued)

Table 1. Continued

S.No.	Age in years	Gender	Education	Job title/position/ designation	Frequency of hearing aid (s) use?
39	41–45	Female	Professional Degree	Healthcare practitioner	Few times a week
40	41–45	Male	Professional Degree	Human resource manager	Daily
41	46–50	Female	Undergraduate	Manager	Few times a week
42	46–50	Male	Professional Degree	Vice President	Daily
43	46–50	Female	Postgraduate	Assistant supervisor	Daily
44	46–50	Female	Professional Degree	CEO	Many times, a week
45	46–50	Male	Postgraduate	Supervisor	Daily
46	51–55	Female	Professional Degree	Accountant	Few times a week
47	51–55	Female	Intermediate	Nursery nurse	Daily
48	51–55	Female	Professional Degree	Accountant	Few times a week
49	51–55	Female	Postgraduate	Nurse	Few times a week
50	51–55	Female	Post-graduate	Doctor	Daily
51	51–55	Female	Postgraduate	Doctor	Daily
52	51–55	Male	Undergraduate	Data analyst	Daily
53	51–55	Female	Undergraduate	Educator	Daily
54	56 or more	Male	Intermediate	Retired	Daily
55	56 or more	Female	Postgraduate	Medical doctor	Daily
56	56 or more	Male	Postgraduate	Retired headteacher	Daily
57	56 or more	Female	Postgraduate	Educational consultant	Daily
58	56 or more	Male	High School	Retired	Daily
59	56 or more	Male	Undergraduate	Executive	Few times in a month

and Strauss, 1967), were initially generated. To ensure methodological rigor and coding reliability, two researchers independently undertook the coding process. Discrepancies in their coding process were discussed and resolved to achieve inter-coder reliability. This also helped ensure the reliability and rigor of reported findings. In addition, sample appropriateness, ensured by conducting screening survey before administering the main study for identifying the drivers of adoption.

For open coding the data, the original text of responses was broken down into smaller sentences and then refined based on their intrinsic meanings to generate concepts and categories. Next, the open codes were aggregated by examining analogical relationships and logical patterns among these concepts. Finally, the axial codes were consolidated to derive selective codes, representing a comprehensive set of drivers of AI-powered hearing aid adoption. A total of 45 open codes, 10 axial codes (sub-themes) and 5 selective codes (themes) were found through analysis (Table 3).

4. Results of data analysis

Three-level coding of the 33 qualitative responses collected from existing AI-powered hearing aids identified five selective codes (Table 3), representing the factors that drive their interest in this technology and could serve as reasons for adoption for other patients with hearing impairment. These findings reveal that people do not just want better hearing devices. Instead, they seek intelligent partners and facilitators who can enhance their day-to-day life experiences with clearer sounds, reduce mental stress, boost social confidence, provide preventive health tracking and offer advanced communication capabilities.

Table 2. Details of participants in phase 2

Participant ID	Age in years	Gender	Duration of hearing aid use
ID 1	47	Female	Less than 1 year
ID2	51	Female	3–4 years
ID 3	33	Female	3–4 years
ID 4	25	Non-binary	4–6 years
ID 5	41	Female	Less than 1 year
ID 6	24	Male	1–2 years
ID 7	75	Male	1–2 years
ID 8	51	Female	More than 6 years
ID 9	38	Male	1–2 years
ID 10	63	Female	More than 6 years
ID 11	55	Female	1–2 years
ID 12	23	Female	More than 6 years
ID 13	27	Female	3–4 years
ID 14	43	Female	3–4 years
ID 15	39	Female	1–2 years
ID 16	18	Female	3–4 years
ID 17	26	Female	More than 6 years
ID 18	54	Male	More than 6 years
ID 19	28	Female	Less than 1 year
ID 20	31	Male	More than 6 years
ID 21	28	Male	More than 6 years
ID 22	67	Male	Less than 1 year
ID 23	35	Male	3–4 years
ID 24	25	Female	3–4 years
ID 25	50	Male	1–2 years
ID 26	21	Female	3–4 years
ID 27	30	Female	3–4 years
ID 28	35	Male	Less than 1 year
ID 29	53	Female	More than 6 years
ID 30	37	Female	Less than 1 year
ID 31	78	Male	More than 6 years
ID 32	80	Male	4–6 years
ID 33	44	Male	Less than 1 year

4.1 Intelligent environment mastery

Intelligence environment mastery is one of the clearest themes to emerge from the responses. This captures the idea that AI-powered hearing aids do much more than just amplify sounds; they actively manage and refine what the user hears, based on their location and the surrounding environment. Users repeatedly spoke about how the hearing aids seemed “smart”, adapting automatically to changes in noise levels and focusing on what truly matters: human voices. Looking at it from a different perspective, this theme captures patients’ biggest frustration with traditional hearing aids, which is the constant struggle to hear clearly in challenging settings, such as restaurants, offices and busy streets. Overall, the responses show that the ability of the AI-powered hearing aid to manage the environment intelligently is the foundational reason that makes the use of AI in hearing aids so important. The views of participants can be expressed through two sub-themes:

4.1.1 Adept at adaptive management of noise. Many participants discussed how AI devices helped them cope with noisy or chaotic environments. What stood out was how the devices seemed to know which sounds to suppress and which to enhance. When participants talked about noise management, they consistently described their current hearing aids as

Table 3. Data analysis

Open codes	Axial codes	Selective codes	Sample quotes
- <i>Cancellation and filtering of background noise</i> - <i>Enhancing and amplifying speech over ambient sounds</i> - <i>Advanced noise suppression capabilities</i> - <i>Adaptive sound processing</i> - <i>Context-aware processing</i> - <i>Clarity in environmental sounds</i> - <i>Environment-specific optimization</i> - <i>Dynamic voice adaptation</i> - <i>Multiple-speaker environment management</i> - <i>Automatic volume adjustments</i> - <i>Lowers mental fatigue</i> - <i>Lowers the listening effort</i> - <i>Reduces the strain on the hearing</i> - <i>Less physical strain to listen</i> - <i>Improves concentration/focus</i> - <i>Learning user preferences over time</i> - <i>Personalized processing of sounds</i> - <i>Recognizes the voice of familiar people</i> - <i>Clear conversation in meetings</i> - <i>Better family gathering participation</i> - <i>Improves voice clarity</i> - <i>Reduced need for repetition requests</i> - <i>Increased social confidence</i> - <i>Reduced social isolation</i> - <i>Enhanced social participation</i> - <i>Prioritizing specific speakers</i> - <i>Greater independence in social settings</i>	Adept at adaptive management of noise Automatic environment detection Reduces cognitive drain Personalization through learning Improved communication in social and professional settings Enhances comfort in social settings	Intelligent environment management Superior user experience Enhanced social inclusion	ID 4: "AI-driven hearing aids offer compelling advantages, including real-time audio adjustment (e.g. filtering out traffic sounds and amplifying voices)." ID 16: "I envision AI-enhanced hearing aids adapting seamlessly across various environments by automatically adjusting to the surroundings." ID 18: "One problem was mental fatigue after a day of work, where I would need to attend meetings or one-on-one discussions, so by the end of the day, I would be mentally tired." ID 6: "What I like most about AI-powered hearing aids is their intelligence and adaptability . . . I also appreciate the personalization features." ID 19: "At family gatherings, it would help me join conversations without constantly asking people to repeat themselves." ID 26: "This adaptability would help me stay engaged without feeling overwhelmed, making social and professional interactions smoother, more enjoyable, and far less exhausting."

(continued)

Table 3. Continued

Open codes	Axial codes	Selective codes	Sample quotes
- Ability to detect a fall - Heart rate/health monitoring - Hearing health tracking - Activity/fitness tracking - Early health issue detection - Integrated with Smartphone applications - Supports Bluetooth streaming - Transmission of phone calls - Music streaming - Integration of voice assistants - Directional voice focus - Speaker identification/prioritization - Effective algorithms - Language translation in real-time - Transcription and translation - Distinguish between different environmental sounds - Ability to classify and manage noise - Multi-language support	- Facilitates health monitoring - Smart connectivity - Superior voice processing - Advanced features	- Integrated wellness-well-being ecosystem - Technological superiority	ID 9: “AI could also provide real-time data, helping users monitor hearing health and offering insights into their listening patterns.” ID 11: “I also very much like the fact that many of them like to use an app or my phone. This provides a comprehensive analysis of my hearing.” ID 23: “I also appreciate features like directional microphones, which help me focus on the person I am speaking with.” ID 4: “For outdoor settings, for example, it could cut out wind noise but enhance background warnings like traffic.”

overwhelmed by complex sound environments. Traditional devices amplify everything equally, which means background noise competes directly with the voices they want to hear.

Participants repeatedly emphasized their need to cancel and filter *background noise*. ID 12 said, “I like the fact that they cancel noise and *make hearing very clear*.” This person captured what everyone wants: technology that eliminates the confusion rather than adding to it.

The idea of *enhancing and amplifying speech over ambient sounds* frequently arose because people understand that AI should make smart choices about what to amplify. ID 4 explained their technical expectations: “*AI-driven hearing aids offer compelling advantages, including real-time audio adjustment (e.g. filtering out traffic sounds and amplifying voices)*.” This participant showed us that people have a sophisticated understanding of how AI could prioritize important sounds.

Many respondents discussed their daily struggles in urban environments, which explains their focus on *advanced noise suppression capabilities*. ID 7 described their reality: “*These devices provide advanced noise cancellation capabilities that would benefit users in noisy situations, such as public transport and busy streets*.” This person painted a clear picture of acoustic challenges that traditional hearing aids cannot handle.

When participants discussed *adaptive sound processing*, they demonstrated impressive understanding of how AI should work. ID 14 explained: “*It has adaptive sound processing,*

e.g. it adjusts sounds depending on the environment, for instance, in a crowded place it reduces noise.” This participant showed us that people expect AI to automatically change its approach based on where they find themselves. In sum, these comments were echoed by others who described the relief of being able to tune into conversations, even in places like crowded streets or cafes.

4.1.2 Automatic environment detection. Participants shared that they are exhausted by the constant mental effort required to manage their hearing aids manually. They want to stop thinking about their devices entirely and focus on their conversations and activities. The “smart” responsiveness of AI-powered aids was a source of both convenience and confidence, with its features making listening less of a task and more of a natural experience again.

When people talk about context-aware processing, they paint pictures of technology that understands their environment automatically. ID 8 described their views: “AI-powered hearing aids make automatic adjustments to various environmental settings.” This participant stressed how people expect AI to handle environmental complexity without their conscious involvement.

The concept of *clarity in environmental sounds* extends beyond just hearing speech clearly. ID 3 connected this to broader life quality: “They can help me focus on important voices, reduce listening fatigue, and enhance safety by making environmental sounds clearer. Their adaptability across settings makes daily activities easier.” This person highlighted that environmental clarity affects communication, safety and overall quality of life.

People described *environment-specific optimization* as their key requirement, walking from a quiet library to a busy street without missing a beat in their conversation. ID 16 said, “I envision AI-enhanced hearing aids adapting seamlessly across various environments by automatically adjusting to the surroundings.” This participant revealed seamless technology adaptation from the user’s perspective.

The idea of *dynamic voice adaptation* reveals how participants understand AI’s potential. ID 21 described: “AI-hearing aids adapt dynamically to highlight voices based on relevance and proximity.” This person grasped how AI could provide intelligent attention management that mirrors natural hearing processes.

Multiple-speaker environment management addresses one of the most challenging situations participants face. ID 21 gave us a specific example: “For instance, if someone at the other end of the table begins to speak, the hearing aid will automatically prioritize them first.” This participant illustrated how the AI could automatically handle complex social acoustic situations.

The need for *automatic volume adjustments* reflects people’s desire to eliminate device management. ID 30 explained: “They can automatically reduce background noise in a crowded café or amplify voices during a conversation.” This response demonstrated AI’s ability to handle all acoustic adjustments transparently.

4.2 Superior user experience

Beyond just hearing better, many participants described a broader improvement in their quality of life. AI hearing aids did not just reduce noise; they reduced fatigue, headaches and stress. They made people feel more in control of their social and emotional lives. Participants recalled the hidden burdens that traditional hearing aids created in their daily lives, noting how AI-powered hearing aids address these issues. The theme, *superior user experience*, represents the positive impact of powering the hearing aid on the qualitative and physical aspects of users’ lives.

4.2.1 Reduces cognitive drain. For many, hearing loss had meant a constant effort to follow conversations, which led to exhaustion. AI hearing aids were seen as offering a welcome break from this effort. When participants talked about cognitive drain, they shared personal stories that revealed the true cost of hearing difficulties. Many described how social events left them feeling mentally exhausted, not from the social interaction itself, but from the effort required to follow conversations in challenging environments.

Lowers mental fatigue emerged as a critical benefit people expect from AI hearing aids. ID 18 shared personal experience: “*One problem was mental fatigue after a day of work, where I would need to attend meetings or one-on-one discussions, so by the end of the day, I would be mentally tired.*” This participant helped understand how traditional hearing aids fail to reduce the cognitive effort required for effective communication.

People talked about *lowering the listening effort* as a primary advantage of AI technology. ID 9 explained: “*The real-time adjustments and tracking of hearing health are added bonuses, giving users better control over their hearing experience.*” This person connected AI automation directly to reduced mental strain and better control over their hearing experience.

Many participants described physical consequences when they discussed *reducing the strain on their hearing*. ID 11 shared detailed personal experience: “*Absolutely, there should be health benefits. Reducing mental fatigue is one. I often get severe headaches, even a few migraines, due to the stress and strain of trying to hear everything and everyone in the room.*” This revealed the physical toll of inadequate hearing assistance.

Less physical strain to listen manifests in concrete ways that participants clearly understand. ID 12 made a direct connection: “*The noise cancellation feature can help avoid problems like migraines.*” This participant showed us how effective noise management could eliminate physical discomfort associated with effortful listening.

When people talked about how *AI improves concentration/focus*, they revealed broader benefits. ID 23 explained: “*This improves focus, reduces stress, and supports better mood and social interaction.*” This response showed how reduced cognitive burden creates positive effects across multiple life areas.

These responses show that AI-powered hearing aids are not just about sound. They are about restoring energy levels, providing emotional ease and facilitating daily functioning.

4.2.2 Personalization through learning. Another standout feature that participants valued was personalization, the sense that their hearing aid was learning from them and adapting over time. This was evident from responses where participants expressed frustration with the one-size-fits-all approach of traditional hearing aids. They like AI technology since it learns from their behavior, adapts to their preferences and becomes more effective through continuous interaction.

Learning user preferences over time excited participants because it represents technology that gets smarter with use. ID 6 expressed: “*What I like most about AI-powered hearing aids is their intelligence and adaptability ... I also appreciate the personalization features.*” This participant showed how people value technology that becomes more effective through experience.

The concept of *personalized processing of sounds* represents sophisticated individual optimization that people associate with AI capabilities. ID 17 explained: “*The personalized sound processing is another standout feature, making conversations easier, even in challenging acoustic environments.*” This response demonstrated that AI is a preferred technology that understands and adapts to individual hearing characteristics.

Recognizes the voice of familiar people, which particularly appeals to participants as an advanced personalization feature. ID 14 described: “*it has personalized learning that learns users’ preference over time, which makes it more appealing and favourable to meet users’ needs.*” This participant illustrated how people AI can develop a sophisticated understanding of their individual communication patterns and priorities.

4.3 Enhanced social inclusion

Participants opined that hearing difficulties create barriers to human connection that go far beyond simply missing words in conversations. They described how inadequate hearing assistance leads to social withdrawal, reduced confidence and gradual isolation from meaningful relationships and professional opportunities.

4.3.1 Improved communication in social and professional settings. When participants shared experiences about their communication challenges, they described specific situations where traditional hearing aids completely fail them. These responses revealed how hearing difficulties impact both professional effectiveness and personal relationships.

Clear conversation in meetings directly affects people's professional lives and career advancement. ID 24 explained: "*In office meetings, it helps me stay engaged without constantly straining to follow discussions.*" This response showed how communication difficulties impacted their workplace participation and professional effectiveness.

Better family gathering participation emerged from the response, talking about missed family moments. ID 27 described: "*At family gatherings, where multiple people talk at once, the AI could prioritize voices I am facing or frequently interact with.*" This response illustrated how AI could restore full participation in meaningful family interactions.

People emphasized their need for *improved voice clarity* that goes beyond simple volume amplification. ID 14 explained the technical requirement: "*It enhances speech-this enables one to isolate and amplify voices, thus clarity is improved.*" This shows that AI can provide sophisticated speech enhancement rather than generic amplification.

Reduced need for repetition requests addresses a source of social embarrassment that participants frequently experience. ID 19 shared: "*At family gatherings, it would help me join conversations without constantly asking people to repeat themselves.*" This reveals how AI could eliminate socially awkward situations that could limit their participation.

4.3.2 Enhances comfort in social settings. Participants opened about hearing difficulties' psychological and emotional impact on their social lives. They described lost confidence, anxiety about social situations and gradual withdrawal from activities they used to enjoy.

Increased social confidence connects directly to reliable hearing technology. ID 23 expressed: "*This would make social interactions smoother and more natural.*" This response showed how people link technological reliability to social ease and natural conversation flow. *Reduced social isolation* came up frequently as participants shared painful experiences of feeling left out. ID 13 explained: "*Improved communication can help reduce feelings of isolation and loneliness.*" This helped understand how hearing assistance technology impacts mental health beyond immediate communication benefits.

Enhanced social participation reflects people's observation that better technology encourages them to engage more fully. ID 29 described: "*Over time, this could encourage me to engage more socially and reduce the tendency to withdraw from group activities.*" This response revealed how inadequate hearing assistance creates a cycle of social avoidance.

Prioritizing specific speakers represents sophisticated functionality that people believe will transform social communication. ID 5 provided a practical example: "*Unlike traditional devices, they prioritize specific speakers, making conversations clearer—for example, focusing on a friend's voice in a busy park.*" This shows AI as a technology for hearing that can manage complex social acoustic environments intelligently.

Greater independence in social settings encompasses participants' overall empowerment from AI hearing aids. ID 26 comprehensively described: "*This adaptability would help me stay engaged without feeling overwhelmed, making social and professional interactions smoother, more enjoyable, and far less exhausting.*" This captured the transformative potential that participants see in AI technology.

4.4 Integrated wellness-well-being ecosystem

Participants showed a keen understanding of how AI hearing aids could serve multiple functions beyond hearing assistance. They envision these devices as comprehensive health monitoring platforms and connectivity hubs that integrate seamlessly with their digital lives and wellness routines.

4.4.1 Facilitates health monitoring. When participants talked about health monitoring, they demonstrated understanding that hearing aids offer unique advantages for health surveillance

because people wear them consistently throughout their waking hours. They see potential for comprehensive wellness support that leverages this constant-wear characteristic.

The ability to detect falls particularly appeals to participants who value safety enhancement. ID 10 explained: “An AI hearing aid can detect when you are about to fall and prevent you from getting injured.” This indicates that hearing aids could serve as safety monitoring devices due to their consistent wear patterns. *Heart rate/health monitoring* represents integration with broader wellness tracking that excites many participants. ID 28 described: “Some AI hearing aids can track heart rate, providing valuable insights into cardiovascular health and potentially alerting users to potential issues.” This demonstrates the vision of hearing aids as health monitoring platforms that leverage ear-based sensors.

Hearing health tracking appeals to participants who want proactive monitoring rather than reactive treatment. ID 9 explained: “AI could also provide real-time data, helping users monitor hearing health and offering insights into their listening patterns.” This revealed AI as a technology that provides ongoing assessment and early intervention capabilities.

Activity/fitness tracking particularly appeals to younger participants who want comprehensive wellness monitoring. ID 10 stated: “It can also track my steps and promote my wellness.” This response reflected expectations for multi-functional devices integrating fitness monitoring with hearing assistance.

Early health issue detection represents the proactive potential that participants see in AI-enhanced hearing aids. ID 15 explained: “Early hearing loss detection capabilities enable these devices to encourage patients to engage in preventive healthcare activities.” This shows how AI could transform hearing aids from treatment devices to prevention platforms.

4.4.2 Smart connectivity. Participants note that AI hearing aids integrate seamlessly with their digital devices and smart technology ecosystems. They want these devices to function as sophisticated communication hubs rather than standalone medical equipment.

Integrated with smartphone applications, it represents essential connectivity that participants expect from modern hearing aids. ID 11 explained the value: “I also very much like the fact that many of them like to use an app or my phone. This provides a comprehensive analysis of my hearing.” This showed how app connectivity enabled better understanding and control of their hearing experience.

Support for Bluetooth streaming emerged as a fundamental functionality that participants associate with modern hearing aids. ID 10 provided a specific example: “If you like music, you can connect Bluetooth and stream music, a good example is the Resound ONE.” This demonstrated expectations that hearing aids should function as sophisticated audio devices for entertainment and communication.

The transmission of phone calls represents essential communication functionality that participants expect to be seamlessly integrated. ID 32 explained: “They are also very effective in transmitting phone calls directly to my hearing aids.” This revealed how people value direct audio streaming, eliminating additional accessories or adaptations.

Music streaming addresses quality-of-life enhancement that participants associate with modern hearing technology. ID 22 expressed personal preference: “Music is my favourite as I can tune in on Bluetooth to my phone’s audio.” This revealed how entertainment capabilities contribute to overall satisfaction and device acceptance. *Integration of voice assistants* represents advanced connectivity that participants envision enhancing convenience and functionality. ID 29 described: “Integration with virtual assistants like Siri or Alexa would also be helpful for hands-free tasks.” This shows a vision of hearing aids as interfaces to broader smart technology ecosystems.

4.5 Technological superiority

Participants demonstrated keen awareness of how AI technology could provide capabilities far beyond traditional hearing assistance. They described advanced features that represent the cutting-edge potential they associate with AI enhancement.

4.5.1 Superior voice processing. When participants talked about voice processing, they showed close understanding of how AI could provide sophisticated audio analysis and enhancement that mirrors natural hearing processes rather than simple amplification.

Directional voice focus represents spatial audio processing that participants particularly value for complex acoustic environments. ID 23 explained: “*I also appreciate features like directional microphones, which help me focus on the person I am speaking with.*” This demonstrated how advanced processing could enable selective attention to specific speakers.

Speaker identification/prioritization represents personalized voice recognition that participants associate with AI capabilities. ID 26 described: “*I would also like voice recognition personalization—the ability for the hearing aid to prioritize familiar voices, like family or close friends.*” This showed AI as hearing technology that can learn and recognize individual voice characteristics. *Effective algorithms* represent the underlying technical sophistication that participants expect from AI-enhanced devices. ID 28 explained: “*AI hearing aids use advanced algorithms to help identify and suppress unwanted background noise.*” This revealed a technical understanding of how AI differs from traditional hearing aid processing approaches.

4.5.2 Advanced features. Participants appreciated cutting-edge capabilities extending beyond traditional hearing assistance to enable new forms of communication and connectivity. These features represent the aspirational potential they associate with AI technology.

Language translation in real-time emerged as a particularly compelling advanced feature. ID 10 expressed enthusiasm: “*I like the fact that they can translate languages in real time, for example, the Starkey Livio Edge AI.*” This response demonstrated understanding of how AI could break down communication barriers beyond hearing loss, including language differences.

Transcription and translation represent comprehensive communication support that participants value highly. ID 13 explained: “*Some AI hearing aids can use live transcription and translation features, making it easier for individuals to communicate.*” This person revealed expectations for technology that simultaneously provides multiple forms of communication assistance.

Distinguish between different environmental sounds to address safety and awareness capabilities that participants associate with intelligent processing. ID 30 described: “*Some models can detect and alert for emergency sounds like alarms or sirens, enhancing safety.*” This shows that participants like AI, which can intelligently categorize and prioritize different types of environmental sounds.

The ability to classify and manage noise represents sophisticated acoustic analysis that participants expect from AI technology. ID 4 provided a specific example: “*For outdoor settings, for example, it could cut out wind noise but enhance background warnings like traffic.*” This shows how AI is preferred for context-specific noise management that it can provide.

Multi-language support encompasses comprehensive communication capabilities that participants associate with AI enhancement. ID 19 described integration potential: “*Some of them can even connect to smartphones, letting you hear phone calls, music, or GPS directions directly in your ears.*” This shows the vision of AI hearing aids as comprehensive communication platforms rather than single-purpose medical devices.

5. Discussion

Coding of data revealed five main themes: intelligent environment management, superior user experience, enhanced social inclusion, integrated wellness-well-being ecosystem and technological superiority, which show reasons for AI-powered hearing aid adoption. Illustrating the users’ view more closely, each theme is further divided into two sub-themes. Intelligent environment management comprises: adept at adaptive management of noise and automatic environment detection; superior user experience comprises: reduces cognitive drain

and personalization through learning; enhanced social inclusion comprises: improved communication in social and professional settings and enhances comfort in social settings; integrated wellness-well-being ecosystem: facilitates health monitoring and smart connectivity; and technological superiority: superior voice processing and advanced features. The findings show that respondents consider AI-powered hearing aids a complete transformation from the traditional, basic amplification devices to intelligent, adaptive and comprehensive life enhancement systems. Overall, respondents feel AI-powered hearing aids address not just hearing loss, but the broader quality-of-life challenges that hearing difficulties create.

The findings of this study affirm and extend several established insights from prior research on hearing aid adoption and AI integration. Prior literature has discussed, as also found by this study, several benefits of AI-powered hearing aids. For example, researchers have discussed benefits and features such as AI-driven speech enhancement systems (Chen *et al.*, 2024), optimized speech based on the environment (Fabry and Bhowmik, 2021), Bluetooth connectivity, mobile app integration and wireless charging (Palkar and Dias, 2024); enhanced sound processing and self-adjustment (Chitra Thara *et al.*, 2025; Sylopp and Bruns, 2023); adjustment to different listening environments, minimizing background noise and providing speech clarity (Fawzy *et al.*, 2023); improving sound based on user feedback and preferences (Balling *et al.*, 2021); making it easier to understand speech in noisy places (Umashankar *et al.*, 2021); and monitoring general health and wellness (Fabry and Bhowmik, 2021).

While the findings validate many previous observations, they also surface critical distinctions and new directions that deepen our understanding of user motivations and expectations in the AI context. For instance, while prior research primarily discussed AI features in functional or clinical terms, this study highlights the emerging user perception of AI hearing aids as cognitive aids. The findings emphasize how users experience reduced listening fatigue, better focus and relief from symptoms like stress and migraines. These perspectives go beyond the sound-related benefits emphasized in prior literature. The findings of this study, thus, highlight AI-powered hearing aids as tools that support cognitive and emotional well-being, a dimension that has been less examined in prior literature.

A framework bringing together the findings of this study is presented in Figure 2.

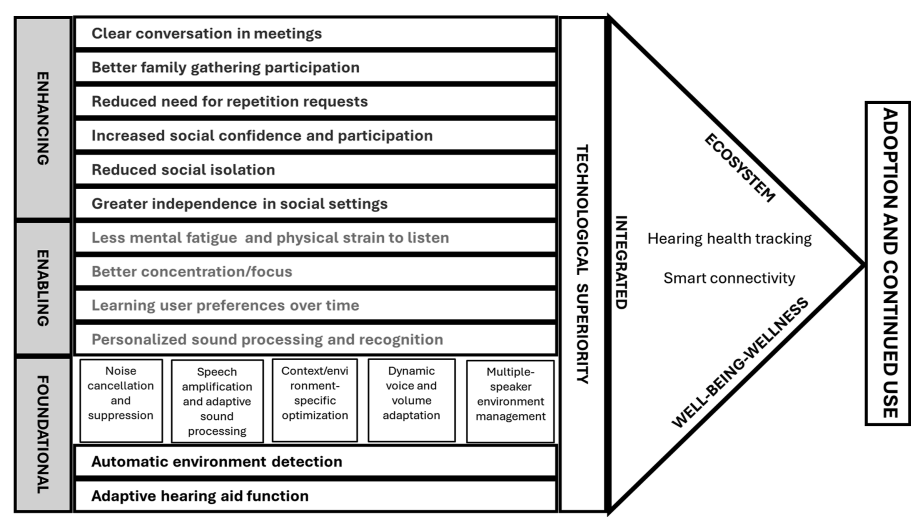


Figure 2. Framework for AI-powered hearing aid adoption and continued use

This framework presents the five levels of adoption drivers, from the foundational level to the advanced level. It organizes the findings into foundational, enabling and enhancing factors facilitated by AI-powered hearing aids' technological superiority, leading to an integrated wellness-well-being ecosystem that could jointly drive AI-powered hearing aid adoption by non-users and continued use by those who have already adopted it.

6. Conclusion

This study examines the drivers of AI-powered hearing aid adoption, using an exploratory qualitative approach. First, 626 hearing-impaired individuals were screened through a two-phase approach, of which 59 were confirmed using an AI-powered hearing aid. The study then applied grounded theory methodology to analyze qualitative data collected from 33 of the 59 who were invited to participate based on their confirmation that they had a hearing impairment and were currently using AI-powered hearing aids.

The analysis revealed 45 open codes, 10 axial codes and 5 selective codes representing key AI-powered hearing aid adoption drivers from the patient perspective. The selective codes, representing the five themes that broadly shape adoption, are: (1) intelligent environment management, (2) superior user experience, (3) enhanced social inclusion, (4) integrated wellness-well-being ecosystem and (5) technological superiority. The axial codes, representing sub-themes within each theme, reveal that, unlike the traditionally used hearing aids that amplify sound, AI-powered aids provide adaptive noise management and environment detection, reduction in cognitive fatigue and physical strain, personalized learning capabilities, improved communication and comfort in social and professional settings, physical safety, health monitoring, smart connectivity, superior voice processing and other advanced features like transcription. The study offers several implications, as discussed below.

6.1 Theoretical implications

The study offers key theoretical implications: First, this study provides a comprehensive assessment of the drivers of AI-powered hearing aid adoption, which is missing in the past literature. This is important because hearing aids are the most used interventions to manage hearing impairment, especially for mild to moderate impairment (Thomas and Völter, 2023), and the AI-powered hearing aids are a great option since they enhance sound processing, enable self-adjustment, improve overall usability and user satisfaction (Chitra Thara *et al.*, 2025; Sylopp and Bruns, 2023). Driving adoption of AI-powered hearing aids is also important since people suffering from hearing-related issues face emotional and mental hurdles and social challenges, sometimes due to a delay in language and speech development (Schindler *et al.*, 2022) and other times due to depression (Huang *et al.*, 2025), impacting their relationships and quality of life. Thus, by providing a comprehensive map of drivers, the current study strengthens theoretical understanding of the area.

Second, the findings especially revealed the quality-of-life aspect of AI-powered hearing aids. The prior literature has positioned hearing aids primarily as tools for addressing hearing impairment effectively (Thorpe and Dussard, 2018; Bennett *et al.*, 2020), with some acknowledging the value of personalization (Carr and Kihm, 2022). However, this study offers a broader conceptualization from a life quality perspective by bringing out their role in cognitive and physical stress relief, comfort in social and professional settings, and a broader health and safety function, thereby positioning AI-powered hearing aids as creators of the well-being-wellness ecosystem. This study also provides new insight into the user–technology relationship, by revealing that people with hearing impairment perceive the value of adopting them. These devices are learning entities that learn their personal preferences and evolve with their lifestyle.

Third, based on these findings, the study provides a foundational-enabling-enhancing framework leveraging the technological superiority of AI-powered hearing aid and their ability to create an integrated well-being-wellness ecosystem to drive adoption and continued use. The framework's strength and usefulness lie in using real-life user experiences to provide actionable structure for research and support the extension of technology adoption theory with newer constructs.

6.2 Managerial implications

The study's findings extend the existing hearing aid adoption literature and provide valuable insights for healthcare professionals, manufacturers and scientists for developing user-centered AI-powered hearing solutions that address the multifaceted quality-of-life challenges faced by people suffering from hearing impairment. First, the study findings show that fundamental functional features such as adaptive noise cancellation, speech enhancement and automatic environment detection that address the impairment directly are key to adoption, user satisfaction and continued usage. Drawing on this, the study suggests that manufacturers, developers and designers should devote extensive attention to ensure that these essential capabilities function flawlessly and continuously without breakdown before investing in premium and add-on features like transcription, translation or music streaming.

Second, reinforcing the idea that fundamental functionality is basic and always there, this study recommends that marketing communications pitches should shift from a focus on superlative technologically advanced functional features to emphasizing quality-of-life narratives. These pitches must highlight cognitive stress relief, enhanced social confidence, physical stress-relief and quality-of-life enhancement as the key reasons why AI-powered hearing aids are worth adopting. In this regard, user testimonials based on their experience of using could be very useful.

Third, since intelligent and smart connectivity emerged as key drivers of adoption in this study, the manufacturers and sellers must ensure that their brand of AI-powered hearing aid is seamlessly aligned with the larger digital ecosystem integration. This is important since users consider AI-powered hearing aids to be like personal tech, going beyond just remedial medical devices. As found by this study, features such as Bluetooth streaming, smartphone app integration and voice assistant connectivity are important considerations. To ensure this, companies must provide user-friendly interfaces that support smart connectivity and support easy-to-download and navigate apps.

6.3 Limitations and future research

This study offers insights grounded in in-depth qualitative data collected from 33 hearing impairment patients currently using AI-powered hearing aids. However, it has some method and sample-related constraints: First, even though the participant pool has sufficient heterogeneity in age, gender and duration of impairment, the sample is not fully representative of people from different socioeconomic backgrounds, which limits the generalizability of results. Future studies can extend the findings by consciously recruiting users with different sociodemographic profiles, for example, only people above 60 years of age, to test this study's findings. Second, the study sample comprises only the existing users, i.e. those who have already adopted and using the AI-powered hearing aids. They are likely to be positively disposed. Inclusion of a sample of non-adopters, rejecters or those who discontinued usage post-adoption would have produced better and balanced insights. It is suggested that future studies must study such sample to uncover the negative aspects and barriers related to the adoption and continued use of AI-powered hearing aids. Finally, the written interview format used in this study limits the depth of examinations as compared to face-to-face interview, either offline or online. This is so because the answers are written in the researcher's absence and there is no scope for further probing or clarifying a view, potentially missing a more nuanced perspective. Future research using multi-method approach of data collection can test and extend the results of this study further.

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