

Synopsis of the Thesis
**Analysis of the Factors Influencing the Purchase
Intention of Hearing Aids in West Bengal, India**

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1. INTRODUCTION

Hearing loss is a significant global health issue, affecting roughly 1.5 billion individuals worldwide, with 466 million experiencing disabling hearing loss (World Health Organization, 2021). As the global population ages, the prevalence of hearing loss is expected to increase, making it one of the most widespread health concerns of the 21st century.

Recent years have seen a surge in technological advancements within the field of hearing loss. Hearing aids, once bulky and often stigmatized, are now smaller, more discreet, and equipped with advanced features.

The way society perceives hearing loss and hearing aids is undergoing a positive transformation. Increased awareness campaigns and advocacy efforts led by individuals with hearing loss have contributed to a growing understanding of the impact of hearing loss and the benefits of wearing hearing aids.

In India, hearing loss is a significant public health concern, affecting an estimated 63 million individuals (Indian Council of Medical Research, 2019). Hearing aids play a crucial role in addressing hearing loss, significantly improving communication abilities, social participation, and overall well-being for individuals with hearing impairment. They are a transformative solution for individuals with hearing loss, enabling them to overcome communication barriers, participate fully in society, and improve their overall quality of life. Addressing the challenges to hearing aid access and promoting their use in India requires a concerted effort from government, healthcare professionals, and civil society.

Despite the substantial benefits of hearing aids, a significant portion of individuals with hearing loss remain unaided. Global hearing aid uptake remains low, with estimates suggesting that only around 20% of adults with hearing loss use hearing aids (Kochkin, 2016).

2. Research Motivation

Hearing loss significantly impacts millions in West Bengal, India. Despite advancements in hearing aids, uptake remains low. This research delves into the factors influencing purchase intention, considering demographic characteristics, individual perceptions, and the unique sociocultural context of West Bengal. Comparing these factors with those in developed and developing countries, this

research aims to bridge the knowledge gap and inform strategies to improve hearing healthcare access and address challenges faced by individuals with hearing loss. The ultimate goal is to empower individuals with hearing loss in West Bengal to make informed decisions about their hearing healthcare and improve their quality of life.

3. Review of Literature

A comprehensive literature review is essential for any research study, providing a foundation for understanding existing knowledge and identifying potential research gaps. The various literary works have been referred to understand the various factors which impacts the purchase intention leading to buying and usage of hearing aid.

A global public health concern affecting millions (World Health Organization, 2015), impacting communication, quality of life, and causing potential cognitive decline (Lin & Albert, 2014). Amplification through hearing aids can significantly improve communication, social engagement, and overall well-being (Kochkin, 2007). Despite their benefits, hearing aid adoption rates remain low due to various individual, social, and economic factors (Kochkin, 2005). Family, friends, and healthcare professionals play a crucial role in encouraging hearing aid use (Dalton et al.,2003).

The Health Belief Model (HBM) (Rosenstock, 1974) and the Theory of Planned Behaviour (TPB) (Ajzen, 2005) help explain factors influencing hearing aid purchase decisions, including perceived susceptibility, severity, and benefits, as well as personal attitudes, social norms, and perceived behavioural control. 7 Ps of Marketing Mix: Product, Price, Place, Promotion, People/Personnel, Process, and Physical Evidence all influence consumer buying behaviour and can be adapted to promote greater hearing aid adoption (McCarthy, 1960). Conceptual framework: Emphasizes seven key constructs influencing hearing aid purchase decisions: Perceived Benefit of Use, Physical Comfort, Psycho-Social Factors, Service Expectation, Orthodox Beliefs & Customs, Diseases & Health Issues, and Cost Factor.

Prevalence of hearing loss is higher in South Asia, Asia Pacific, and sub-Saharan Africa, with studies indicating an inverse relationship between hearing loss and income level (Stevens et al.,2013; WHO, 2012). Additionally, research on hearing loss in older adults suggests that milder forms of hearing loss (>25 dB HL) and hearing disability are common, with significantly higher prevalence rates than previously recognized (Hartley et al.,2010; Cruickshank et al.,19 98; Lin et al.,2011).

As a common chronic condition experienced by older adults, hearing loss affects nearly 50% of individuals over the age of 75 (National Institute on Deafness and Other Communication Disorders (NID CD), 2009). Recent data suggests that hearing loss may be more prevalent than previously

reported and is increasing at younger ages. Studies indicate that 77% of individuals aged 60-69 years may have high-frequency hearing loss (Agrawal et al.,2008; Wall Hagen et al.,1997). With-the increasing average lifespan, addressing hearing loss issues and facilitating continued social engagement is becoming increasingly important.

Despite the significant impact of hearing loss, only approximately 20% of individuals who could benefit from amplification wear hearing aids (NIDCD, 2009). As small number of individuals utilize other assistive listening devices. Factors contributing to this low adoption rate include cost, perceived lack of benefit, and denial of hearing loss (Carmen, 2004; Clark & English, 2004). However, one of the most significant barriers is the perceived stigma associated with hearing loss and the use of hearing aids (Carmen; Johnson et al.,2005; Simmons, 2005).

Research evidence suggests that senior citizens with hearing impairment who use amplification devices live happier, healthier, and longer). However, indicate that only 23% of hearing-impaired adults seek the use of hearing aids. Effective rehabilitation of sensory impairment in older adults significantly affects quality of life and mortality rates (e.g., Appollonia et al.,1996; Bridges et al.,1998; Crandell, 1998; Lamden et al.,1995; Mulrow et al.,1990). Adults with hearing loss report a wide range of hearing aid satisfaction that does not significantly correlate to degree of hearing loss. It is not clear which auditory behavioural factors do contribute to hearing aid satisfaction.

Hearing loss can significantly impact communication, particularly in noisy environments (Humes & Roberts, 1990; Algren et al.,2005). Impaired listeners often struggle with speech perception and require greater cognitive effort, leading to mental fatigue and reduced performance (McCoy et al.,2005; Hagerman, 1984; Plump, 1986; Shinn et al.,2008; Romberg et al.,2013).

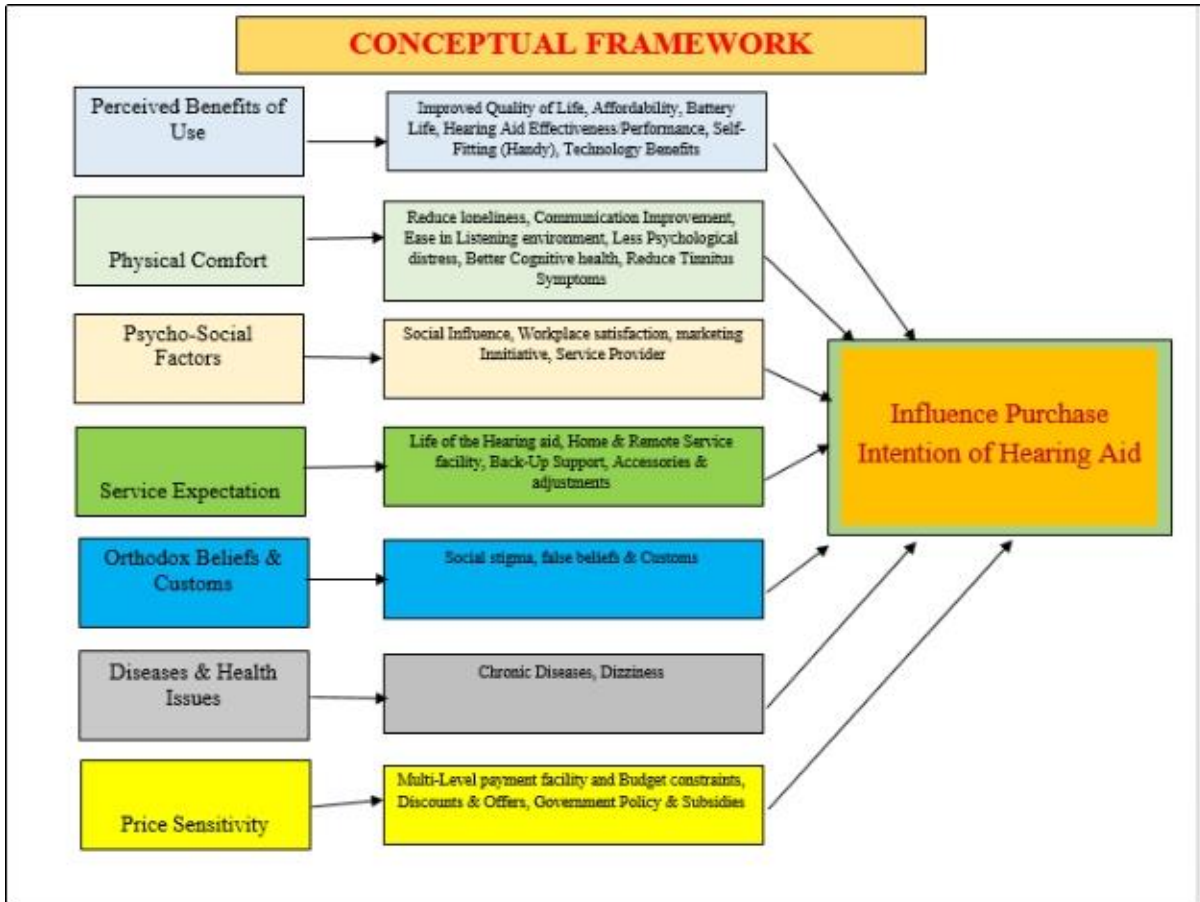
Incorporating the HBM and its constructs into marketing and educational efforts, hearing aid manufacturers, healthcare professionals, and advocacy groups can effectively promote hearing aid adoption and improve the lives of individuals with hearing loss.

The TPB provides a comprehensive framework for understanding and promoting health behaviour, including the use of hearing aids. By targeting individuals' attitudes, subjective norms, and perceived behavioural control, interventions can effectively increase intention and behaviour change, leading to improved hearing health outcomes.

4. Conceptual Framework

Based on the detailed literature review undertaken and the theories undergone we have developed the conceptual framework.

Conceptual Framework Developed



Source: Authors own creation-The Conceptual Framework Developed from Literature Review

To guide our analysis, we utilize two established theoretical frameworks: the Health Belief Model (HBM) and the Theory of Planned Behaviour (TPB). The HBM focuses on individual beliefs about susceptibility, severity, and perceived benefits and barriers, while the TPB emphasizes attitudes, subjective norms, and perceived behavioural control.

The conceptual framework for this research is structured around seven key constructs: Perceived Benefit of Use, Physical Comfort, Psycho-Social Factors, Service Expectation, Orthodox Beliefs & Customs, Diseases & Health Issues, and Cost Factor. These constructs provide a holistic representation of the various factors that influence hearing aid purchase decisions.

5. Research Gaps

Based on the literature review done, the following major research gaps were observed: -

- Not much research has been conducted from the point of view of Hearing Aid Advisers such as ENT Specialist, General Physician, Audiologist, Hearing Care Professionals, Clinician etc. in India
 - Research considering more than one stakeholder or more than one element in the ecosystem is rare in Indian scenario
 - Research considering from the user's point of view as well as from the Advisors angle was hardly evident in the Indian context
 - Several studies have been conducted to understand the reasons for Hearing Aid Acceptance and Non-Acceptance. But hardly, there had been study on Hearing Aid Purchase
 - Legal, Regulatory Compliance and Standardization regarding Hearing Aid dispensing rarely have been studied
 - Benefits from the Hearing Aid have been considered during research work. But a blend of Psycho-social factor, Physical benefits, Health needs as well as future expectation in terms of post-sale benefits in a combined form have not been studied
 - Target population of most studies have been either elderly senior citizens or paediatric population.
 - Gaps in terms of factors that are not properly dealt with
 - Changing Commercial environment
 - Social and cultural environment
- **Research Gaps considered for this research**

There is a major gap from the view of Hearing Aid Stakeholders. This study tries to provide a holistic work from both the users and advisers point of view.

- Maximum research in the past, have concentrated on the physical and psychological factors. The study includes the perceived benefits, psychological factors, Health issues along with post care benefits. Further, it needs a special mention post-care benefits have never been considered with importance in previous research.
- Studies have been concentrating in the metropolitan cities and in urban areas. This study includes sample from Urban and Rural areas since the area of study is Kolkata, North 24 Parganas, South 24 Parganas and Nadia district which have a large portion under Panchayat.

- The buying pattern of the rural area does differ as well as the factors responsible for it from that of the urban area.
- This study includes sample from 16-55 years of age, namely the working community. Although Hearing Loss is not restricted to a particular age group.

6. Research Objectives

In this research the following objectives were considered: -

- ❖ To identify the factors that influence customers purchase intention towards hearing Aids.
- ❖ To examine the most influencing constructs of customers purchase intention towards hearing Aids.
- ❖ To analyse the demographic variables of customers, purchase intention towards hearing Aids?

7. Research Hypotheses

12 hypotheses have been generated with the aim of achieving the objectives stated above. These hypotheses will be put to the test, and conclusions will be made based on the test findings.

The hypotheses are mentioned below: -

Hypotheses

Ho1: Physical comfort does not influence the purchase intention towards Hearing Aids.

Ho2: Psycho-social factor does not influence the purchase intention towards Hearing Aids.

Ho3 Price Sensitivity does not influence the purchase intention towards Hearing Aids.

Ho4: Perceived benefit does not influence the purchase intention towards Hearing Aids.

Ho5: Orthodox-belief and customs does not influence the purchase intention towards Hearing Aids.

Ho6: Disease and health issues does not influence the purchase intention towards hearing Aids.

Ho7: Service expectation does not influence the purchase intention towards hearing Aids.

Ho8: Gender does not influence the purchase intention towards hearing Aids

Ho9: Age-group does not influence the purchase intention towards hearing aids.

Ho10: There is no significant relationship between qualification and purchase intention towards hearing aids.

Ho11: There is no significant relationship between occupation and purchase intention towards hearing aids.

Ho12: There is no significant relationship between monthly income and purchase intention towards hearing aids.

8. Scope of the Research

The scope of this study, focusing on investigating hearing aid purchase intention among individuals with hearing loss in West Bengal, India, presents both strengths and potential limitations that warrant critical examination.

Addressing a Critical Health Concern: The study tackles a significant public health issue in West Bengal, where hearing loss is prevalent, and hearing aid uptake remains low. Understanding the factors influencing purchase intention in this context is crucial for improving hearing healthcare services and addressing the unmet needs of individuals with hearing loss.

Exploring a Unique Cultural Context: The study delves into the sociocultural context of West Bengal, acknowledging that beliefs, attitudes, and practices surrounding hearing loss and hearing aids can vary across cultures. This in-depth exploration allows for the development of culturally appropriate interventions and strategies for promoting hearing aid use.

Utilizing a Mixed-Methods Approach: The study employs a mixed-methods approach, combining quantitative and qualitative data collection methods. This comprehensive approach provides a more nuanced understanding of the complex interplay of factors influencing purchase decisions, capturing both individual experiences and broader societal influences.

Encompassing a Diverse Population: The study targets a diverse population within West Bengal, including individuals of various ages, genders, socioeconomic backgrounds, and levels of hearing impairment. This ensures that findings are representative of the varied experiences and perspectives within the state.

Addressing Underutilization and Decision-Making Processes: The study specifically examines the factors influencing underutilization of hearing aids, a crucial aspect for developing effective strategies to increase uptake. Additionally, it investigates the decision-making processes involved in purchasing hearing aids, offering valuable insights into the dynamics and influences at play.

9. Research Methodology

The analytical and field survey phases were conducted in a methodical and sequential manner, just as in any other research project. The research objectives were developed via a thorough literature analysis, which involved examining previous studies conducted in that field to comprehend their conclusions, shortcomings, gaps, and recommendations for additional research. The research goal served as the foundation for the development of hypotheses. The following step was finalizing the research technique, which included creating structured questionnaires as research instruments.

● Problem of Statement

Hearing loss significantly impacts individuals' quality of life, affecting communication, social interaction, and overall well-being. Hearing aids offer a potential solution to improve hearing and enhance daily living experiences. However, despite their proven benefits, hearing aid adoption rates in India remain relatively low compared to developed countries. Understanding the factors influencing purchase intention towards hearing aids becomes crucial for developing effective strategies to promote their widespread adoption and improve the lives of individuals with hearing loss. This study aims to investigate these factors, focusing on the context of West Bengal, India, to contribute to a comprehensive understanding of the decision-making process related to hearing aid purchases and inform interventions aimed at bridging the gap between hearing loss and hearing aid adoption.

● Research Design

The current study employs a descriptive research design (Creswell, 2003; Kothari, 2004). This design aims to provide an accurate and detailed description of the factors influencing customer purchase intention towards hearing aids in the area of study (Nadia, North 24 Parganas, South 24 Parganas, and Kolkata districts in West Bengal).

Descriptive research is ideal for gaining insights into the current state of affairs regarding purchase intentions towards hearing aids. This information is crucial for identifying areas where interventions or marketing strategies could be implemented to increase adoption rates (Jackson, 1994). Purchase

intention is a multifaceted phenomenon influenced by various factors, including psychological, social, economic, and cultural aspects (Foster & Smith, 2012). A descriptive design allows for a comprehensive examination of these factors and their interrelationships, providing a holistic understanding of the decision-making process.

The descriptive design focuses on providing an accurate and unbiased representation of the data, minimizing researcher bias and ensuring scientific rigor. Employing a representative sample and appropriate data analysis techniques, the findings can be generalized to the wider population, providing insights that are relevant to policymakers, healthcare providers, and hearing aid manufacturers.

It provides a comprehensive and detailed understanding of the factors influencing customer purchase intention towards hearing aids in the area of study. The findings from this study can inform the development of targeted interventions, marketing strategies, and future research endeavour aimed at improving hearing aid adoption rates and enhancing the quality of life for individuals with hearing loss.

The research methodology provides specifics on the equipment, resources, and strategies used to solve the given topic. The methodologies, statistical analysis, and instruments selected are appropriate for different types of data.

It is always possible to use different forms of analysis to different problems on the same subject. Additionally, there may be more than one way to tackle the issue. Selecting an appropriate technique can improve the research's applicability, effectiveness, and accuracy. Therefore, choosing the appropriate methodology receives due and careful thought. It is applied to the collection, examination, and interpretation of data to answer a particular study topic or issue. It has to do with several consecutive stages that help researchers conduct thorough, trustworthy studies. According to Creswell (1997), research is the process of gathering and analysing data in order to improve our comprehension of a subject or problem.

The study's goals are well-defined, and they are succeeded by pertinent hypotheses that have been developed to facilitate the process of identifying solutions to the research challenge. The research design is an outline of the study plan for the problem. Details regarding the type and selection of the sample to be utilized for the problem study are provided in the chapter's sampling plan.

● **Survey Questionnaire Construction**

The questionnaire covers a wide range of factors influencing purchase intention for hearing aids, encompassing demographic characteristics, awareness and knowledge, perceived benefits, purchase

decision-making process, psychological and social factors, service expectations, price sensitivity, and cultural beliefs. This comprehensive approach ensures that the questionnaire captures a holistic view of the complex interplay of factors influencing purchase decisions.

The use of structured questions with multiple-choice options and Likert scales allows for efficient data collection, analysis, and comparison across respondents. This format also helps to minimize response bias and ensure objectivity in the data gathered.

The inclusion of both closed-ended and open-ended questions allows for the collection of both quantitative data (e.g., frequency of hearing aid use) and qualitative data (e.g., reasons for satisfaction or dissatisfaction). This provides a richer and more nuanced understanding of the experiences and perspectives of individuals with hearing loss.

- **Primary Data**

Individuals with hearing loss residing in the four districts of West Bengal (Nadia, North 24 Parganas, South 24 Parganas, and Kolkata). A multi-stage stratified random sampling technique was employed to ensure representation from different age groups, socioeconomic backgrounds, and geographic locations within the target population.

- **Secondary Data**

Review of existing literature on hearing loss, hearing aids, and purchase intention factors. Critically evaluate findings from previous studies, identifying gaps in knowledge and areas needing further investigation. Cite relevant secondary sources, including research articles, books, and industry reports, to support your claims and arguments.

Previous research has identified various factors influencing purchase intention, including product attributes, perceived benefits, cost, social stigma, and access to healthcare services (Kochkin, 2017). However, limited research has explored the specific purchase intention factors among individuals with hearing loss in India, particularly considering the socioeconomic and cultural context of the country (Kumar & Lal, 2020).

The primary and secondary data collection procedures employed in this study were designed to ensure comprehensiveness, representativeness, and data quality. Utilizing diverse data collection techniques, sources, and analytical approaches, the study aimed to provide a deep and nuanced understanding of the factors influencing purchase intention for hearing aids among individuals with hearing loss in West Bengal.

- **Sampling Design**

Multi -stage stratified random sampling technique was used to select a representative sample from the target population of individuals with hearing loss residing in the four districts of West Bengal (Nadia, North 24 Parganas, South 24 Parganas, and Kolkata). The sampling design was chosen for the following reasons:

- **Population**

The target population for this thesis is individuals with hearing loss residing in the four districts of West Bengal: Nadia, North 24 Parganas, South 24 Parganas, and Kolkata. Estimating the exact population size within this group is challenging due to the lack of a comprehensive hearing loss register and the dynamic nature of hearing impairment prevalence.

Based on the various sources mentioned in the study, we can estimate that the target population for this thesis is approximately between 3.5million and 4.3million individuals with hearing loss residing in the four districts of West Bengal. However, it is crucial to acknowledge that this is an approximation, and the actual population size might vary depending on various factors, such as age-specific prevalence, under reporting of hearing loss, and population growth.

- **Sampling Technique**

Convenience sampling techniques has been used in this study to choose a sample of hearing Aids customers in selected districts, West Bengal.

- **Sampling Unit**

Individuals with hearing loss within the target population. The study aims to understand the factors influencing individuals' decisions to purchase hearing aids. Selecting individuals as the sampling unit allows for direct assessment of their knowledge, attitudes, beliefs, and experiences related to hearing loss and hearing aids, providing valuable insights into purchase intention.

- **Size of Sample**

In this study 389 samples from the target population of individuals with hearing loss residing in the four districts of West Bengal (Nadia, North 24 Parganas, South 24 Parganas, and Kolkata) was collected. This sample size was determined using the formula provided by Krejci & Morgan (1970), considering

a 95% confidence level and a 5% margin of error. According to Krejci & Morgan (1970), research can increase the sample size if survey respondents have a low response rate.

● **Data Analysis**

The analysis commences with data cleaning and preparation, ensuring accuracy and transforming categorical variables for quantitative analysis as per Field (2009) and Hair et al. (2010). Descriptive statistics like mean, standard deviation, frequency tables, and histograms visualize the data distribution (Field, 2009; Hair et al., 2010). Factor analysis using PCA or EFA identifies underlying factors influencing purchase intention, assessing their validity and reliability (Hair et al., 2010; Fabregas et al., 1999).

Correlation analysis using Pearson's correlation coefficients determines the strength and direction of relationships between variables (Field, 2009; Hair et al., 2010). Regression analysis assesses the impact of key constructs and demographics on purchase intention, interpreting the coefficients to understand their relative contribution (Hair et al., 2010; Cohen et al., 2003). ANOVA analyses differences in purchase intention and key constructs across demographics, using Tukey's HSD or other post-hoc tests for specific group differences (Field, 2009; Tukey, 1949).

The findings are then integrated to draw conclusions about factors influencing purchase intention towards hearing aids, informing marketing strategies, product development, and customer service initiatives (Hair et al., 2010; Kotler & Keller, 2016).

● **Pilot Study**

The pilot study was conducted in September 2023 to evaluate the feasibility and effectiveness of a questionnaire designed to measure customer intention towards hearing aids. The pilot study included 70 participants, of whom 60 were within the age range of 16-55 years. These participants represented the target population for the main study.

The questionnaire comprised 47 items covering various aspects of hearing aid adoption, including general and demographic factors, perceived benefits, physical comfort, psycho-social factors, service expectations, orthodox beliefs and customs, diseases and health issues, price sensitivity, and orthodox beliefs and customs. The questionnaire utilized a 7-point Likert scale, with responses ranging from "strongly disagree" to "strongly agree."

The pilot study results demonstrated good internal consistency for the questionnaire. Cronbach's alpha values for all key constructs exceeded 0.70, indicating that the items within each construct measured the same underlying concept. This suggests that the questionnaire has high reliability and consistency in measuring customer intention towards hearing aids.

● **Factors Analysis**

Factor analysis plays a crucial role in this study by providing a comprehensive understanding of customer intention towards hearing aids, reducing data complexity, enabling effective model building, and facilitating clear communication of research findings. Unrevealing the underlying structure of customer behaviour, factor analysis provides valuable insights that can drive evidence-based marketing strategies, product development initiatives, and ultimately improve the adoption of hearing aids among individuals with hearing loss.

10. Research Data Analysis

In conclusion, the analyses of demographic factors reveal that age, qualification, occupation, and income all have statistically significant relationships with purchase intention towards hearing aids. Understanding these relationships can help manufacturers, marketers, and healthcare professionals tailor their strategies and interventions to better address the needs and preferences of different demographic groups. This can lead to more effective promotion of hearing aids and improved hearing health outcomes for individuals across diverse backgrounds.

A survey was conducted to understand the factors influencing the purchase intention towards hearing aids. The analysis revealed that demographics play a significant role in this decision-making process. Younger individuals (aged 37-46) constituted the largest age group (46.3%), while a majority of respondents had a secondary school education (35.5%) and earned a monthly income exceeding Rs.55,000(89.2%). Notably, government employees represented the largest occupational group (39.6%).

Further analysis identified key factors influencing purchase intention. Price sensitivity was a significant driver for 3.57% of respondents, while perceived benefits and service expectations influenced 3.46% and 3.69% respectively. Additionally, Orthodox beliefs and customs, disease and health issues, physical comforts, and psycho-social factors played a role for 3.61%, 3.56%, 3.44%, and 3.61% of respondents respectively. These findings highlight the diverse range of factors that influence the purchase decision for hearing aids.

Furthermore, statistically significant relationships were observed between various independent and dependent variables. Younger individuals exhibited lower purchase intention compared to older age groups. Individuals with higher educational qualifications and income levels showed greater purchase intention. Additionally, government employees and those influenced by cultural and religious beliefs, health concerns, physical comfort, and service expectations were more likely to consider purchasing hearing aids. These relationships underscore the importance of tailoring marketing strategies and interventions to address the unique needs and preferences of different demographic groups. Understanding how these factors influence purchase intention, stakeholders can more effectively promote the use of hearing aids and improve hearing health outcomes for a wider population.

11. Research Contribution

This study offers a comprehensive understanding of the factors influencing hearing aid purchase intention in West Bengal, India, by integrating qualitative and quantitative data. It identifies eight key factors and quantifies their relative importance, providing valuable insights for stakeholders, including manufacturers, healthcare professionals, and policymakers.

The study's focus on West Bengal delivers contextually relevant information and recommendations tailored to the region's unique cultural and socioeconomic landscape. Additionally, the identification of future research directions paves the way for further advancements in understanding purchase intention and promoting wider hearing aid adoption.

Lastly, the study contributes to the theoretical understanding of the complexities involved in hearing aid adoption, informing the development of targeted interventions and ultimately improving the lives of individuals with hearing loss.

12. Findings & Conclusions

This study examined the factors influencing hearing aid purchase intention in West Bengal, India. Qualitative and quantitative data revealed eight key drivers: physical comfort, psycho-social factors, price sensitivity, perceived benefits, orthodox beliefs and customs, diseases and health issues, service expectations, and purchase intention. The research found that affordability was a paramount concern, and psycho-social factors, particularly family influence, played a significant role. The study concludes that addressing price accessibility, stigma, and cultural beliefs are crucial for promoting hearing aid adoption in West Bengal. Understanding these complex influences, stakeholders can develop targeted interventions to improve hearing health for individuals with hearing loss.

13. Limitations of the Research

This study delved into the complexities influencing purchase intention towards hearing aids in West Bengal, India, employing a mixed-methods approach to uncover a nuanced understanding of the decision-making process.

Qualitative data from interviews revealed the profound impact of social stigma on individuals with hearing loss, echoing findings from diverse cultural contexts. Regional-specific beliefs and customs emerged as crucial influences, highlighting the importance of culturally-sensitive interventions.

Quantitative surveys, analyzed through factor analysis and structural equation modeling, identified eight key drivers of purchase intention: physical comfort, psycho-social factors, price sensitivity, perceived benefits, orthodox beliefs and customs, diseases and health issues, service expectations, and the inherent purchase intention towards hearing aids. Importantly, the analysis revealed the paramount importance of affordability in West Bengal, reflecting the region's economic realities. Moreover, the role of psycho-social factors, particularly the influence of family and friends, in shaping purchase intention underscored the unique considerations relevant to this population.

Integrating the qualitative and quantitative findings painted a comprehensive picture of the multifaceted influences impacting hearing aid adoption in West Bengal. Qualitative data provided context and depth to the quantitative results, enriching the understanding of the numerical findings. Quantitative analysis, combined with qualitative insights, revealed that while individuals perceived the benefits of improved communication and social interaction, concerns remained regarding the stigma associated with hearing loss and the perceived impact on social acceptance. These findings can guide the development of culturally-sensitive communication strategies for healthcare professionals and manufacturers.

The study concludes that the decision to purchase hearing aids in West Bengal is influenced by a complex interplay of individual, social, cultural, and economic factors. Understanding these multifaceted influences is crucial for stakeholders, including manufacturers, healthcare professionals, policymakers, and individuals with hearing loss, to develop region-specific strategies and interventions that address the unique needs and preferences of the population. Promoting affordability, accessibility, and culturally-sensitive support, this research aims to bridge the gap between understanding and action, ultimately contributing to improved hearing health outcomes for individuals with hearing loss in West Bengal.

14. Scope of Future work

This research lays the groundwork for further exploration in understanding hearing aid purchase intentions and improving hearing healthcare. Future investigations can delve into advanced measurement techniques utilizing artificial intelligence and machine learning to refine existing measures and develop new ones. Additionally, examining the impact of cultural factors on measurements and replicating studies across diverse populations will enhance generalization and cultural sensitivity. Longitudinal and multi-level studies can track changes over time and investigate relationships between constructs at various levels of analysis.

Moreover, integrating research with other areas like psychometric, network analysis, and causal inference will offer new insights into construct measurement and interpretation. Lastly, promoting collaboration between researchers from different disciplines can advance the understanding and measurement of constructs in diverse fields. These avenues will not only expand our knowledge but also pave the way for more effective interventions and improved hearing healthcare outcomes for individuals with hearing loss.

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