

MarkeTrak III: Why 20 Million In US Don't Use Hearing Aids For Their Hearing Loss

By SERGEI KOCHKIN

The following is the fourth article in a series published by The Hearing Journal on the findings of the MarkeTrak III survey. The three previous articles—on trends, consumer satisfaction, and price elasticity—were published in the July, August, and September 1992 issues, respectively.

Part one of this series reported that fewer than 23% of the 25.8 million Americans who have difficulty hearing use hearing instruments.¹ This article quantifies the reasons why 20 million hearing-impaired consumers reject hearing instruments. Before presenting the findings, I would like to summarize the five most important reasons for not purchasing hearing instruments as stated by hearing-impaired participants in the 1990 Hearing Industries Association's (HIA) focus groups.²

The stated reasons, in order of importance, were:

- Hearing instruments have a stigma attached to them.
- The person's hearing loss is not serious enough to warrant getting hearing instruments.
- Hearing instruments are uncomfortable or do not perform well.
- Hearing instruments cannot solve specific hearing problems.
- Hearing instruments cost too much, especially in relation to their value.

Now compare these findings with those of HIA's 1984 survey on why people don't purchase hearing instruments.³ The most commonly stated reasons in 1984 were as follows:

- Hearing loss not severe enough.

- Physicians don't recommend hearing instruments.

- Hearing instruments cannot solve specific hearing problems.

Among the factors *not* generally deemed important by respondents to the 1984 survey were price, noticeability of the product, stigma, product image and performance, lack of knowledge of where to purchase the product, and lack of trust in the hearing instrument dispenser.

SURVEY METHOD

Part one of this series on MarkeTrak III described the survey method in detail, so I will not repeat that here. The findings used in this article are based on usable survey returns from 2306 nonowners of hearing aids who reported having "a hearing difficulty in one or both ears without the use of a hearing aid."

Based on an exhaustive review of the literature on reasons why hearing-impaired persons do not use hearing instruments, I compiled a list of 60 of these reasons and presented it to all the survey subjects with instructions to indicate for each reason if it was "Definitely a reason," "Somewhat a reason," or "Definitely not a reason" for their not owning hearing aids.

In its research of the early 1980s, HIA used a behavioral intention model to quantify reasons for nonpurchase.³ Although this pioneering research was exemplary, its methodology was complex. For the MarkeTrak study, I selected the simplest methodology possible. My approach presented the consumer with an unambiguous and straightforward task. Similarly, I will present nearly all the data and analysis in an unambiguous

manner based on the simple three-point scale that the survey subjects were instructed to use. I hope such a presentation will lead to a common understanding in the hearing industry on the challenges facing us in the decade ahead.

RESULTS AND DISCUSSION

In this report, I have divided the 60 quantified reasons for not purchasing hearing instruments into six categories: hearing loss, consumer (personal), stigma, hearing healthcare professionals, social network, and product.

Hearing Loss Issues

As Figure 1 shows, nearly all (96%) of the nonowners indicated that the current state of their hearing loss was a reason for nonpurchase. Among the most frequently mentioned reasons in this category were: hear well enough in most situations (78%), have mild hearing loss (72%), loss not severe enough (71%), and hearing loss is not disruptive to my life (62%). Slightly fewer than half (45%) the respondents indicated they had a hearing loss in only one ear, while one of three said they do not own hearing aids because of tinnitus or a high-frequency loss. Roughly one out of four cited nerve deafness, while fewer than 10% mentioned surgical issues.

Table 1 presents the "definite reason" data by level of perceived hearing loss. Respondents with a mild hearing loss reported the same top four reasons for nonpurchase as did the total population of nonowners. A significant portion (one third) of moderately impaired subjects reported that their hearing loss was not severe or that they heard well enough in most situations. The reasons most frequently mentioned by severely and profoundly impaired subjects were that they had nerve deafness or unilateral loss.

These findings are consistent with both the HIA focus groups and the 1984

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Table 1. Percent of nonowners by degree of hearing loss reporting that selected hearing loss issues were definite reasons for nonpurchase of a hearing instrument.

HEARING LOSS ISSUES	Perceived Degree Of Hearing Loss				
	% Mild	% Moderate	% Severe	% Profound	% Total
Loss not severe enough	61.3	33.4	7.3	2.2	43.3
Mild hearing loss	63.8	25.8	4.0	0.0	40.6
Hear well enough in most situations	53.8	31.2	16.4	19.6	39.5
Hearing loss not disruptive	37.4	20.4	13.6	13.5	26.9
Hearing not tested yet	28.0	21.9	9.3	4.4	23.4
Unilateral loss	16.2	22.3	36.7	56.4	22.0
Nerve deafness	7.0	16.5	37.5	74.6	16.2
High frequency loss only	17.3	16.6	9.2	0.0	15.8
Tinnitus	13.2	17.1	16.3	10.9	15.4
Don't need fine hearing	15.9	11.2	8.0	5.9	12.8
Need surgery	4.1	6.4	11.5	13.3	6.0
Had surgery—hearing instruments won't help	3.3	4.9	11.2	28.0	5.5
Tried hearing instruments (don't work)	1.4	2.9	9.6	11.3	3.0
Tried hearing instruments (don't like)	1.5	2.9	5.7	5.9	2.6

Note: The top four reasons for each level of hearing loss are shown in boldface type.

HIA survey. Interestingly, three of the four most common reasons for nonpurchase could be interpreted as nonowners possibly minimizing their hearing loss. Many of the participants in the HIA focus group believed that one must be deaf or nearly deaf before the use of a hearing instrument was warranted. Also, focus group members were inclined to rate their hearing loss as less severe than their family members rated it.

Among our target population (persons with moderately impaired hearing or worse), having nerve damage, tinnitus, or unilateral hearing loss were, as in the 1984 study, often-cited—although inappropriate—reasons for not purchasing hearing instruments. Both HIA studies showed that popular conceptions about which conditions can or cannot be helped with hearing instruments are frequently attributable to the advice that consumers receive from audiologists or physicians.

Consumer (Personal) Issues

In agreement with the HIA focus group study, Figure 2 shows that the most common consumer/personal issue for re-

jection of hearing instruments is affordability of the product, a factor cited by 44% of the respondents as somewhat or definitely a reason for nonpurchase. This finding indicates that 9 million hearing-impaired persons in the U.S. are deterred from purchasing hearing instruments because of price.

A nearly equal number of nonowners (43%) indicated they had more serious priorities than purchasing hearing instruments. More than a third (representing 7 million nonowners nationwide) did not purchase because they had not yet had their hearing tested.

Of relatively minor impact (compared to the first three consumer issues) is that about 2 million nonowners were unaware of where to purchase the product or where to get their hearing tested, or that slightly more than 1 million nonowners have tried hearing instruments and found them unacceptable. The least important issue, as measured in this study, was the use of substitute products (e.g., Whisper 2000, Audio-ex); fewer than 4% of respondents, representing 700,000 nonowners, reported using a less expensive device to enhance their hearing.

The Stigma Factor

The number one reason mentioned in the HIA focus groups for not purchasing hearing instruments was a whole series of negative images associated with wearing a hearing instrument. Among these negative images were: appearing older, weaker, disabled, or handicapped. In general, focus group participants believed that admitting a hearing loss in the workplace was particularly unacceptable because an employer would view a hearing-impaired person as disabled and therefore a less desirable employee.

The body of research on stigma, although small, supports the findings of the HIA focus groups. An ingenious research study by Bevan showed that both the size and number of hearing instruments worn negatively impacted the wearer's perception of his credibility, employability, and personal attractiveness.⁴

Part two of this series on MarkeTrak III reported that one out of five hearing instrument owners said they had experienced the effects of stigma in one of four ways as a direct result of wearing hearing instruments: job discrimination (4.9%), rejection (7.6%), ridicule (9.6%), and embarrassment (15.1%).⁵

Surprisingly, the 1984 HIA survey concluded that stigma was not a major issue, even though a majority of nonowners did not have positive psychological images of hearing instruments. In fact, a majority of nonowners (and owners) in that survey indicated that hearing instruments are "noticeable" and "make you look older."

The MarkeTrak study asked nonowners to indicate directly if the 10 stigma items in Figure 3 influenced their decision not to purchase hearing instruments. Slightly more than 40% of nonowners said that stigma, as measured in this study, was a reason for nonpurchase; however, only one out of five said that it was "definitely a reason." The most frequently cited stigma-related reasons were: don't want to admit hearing loss in public (27%), it would be embar-

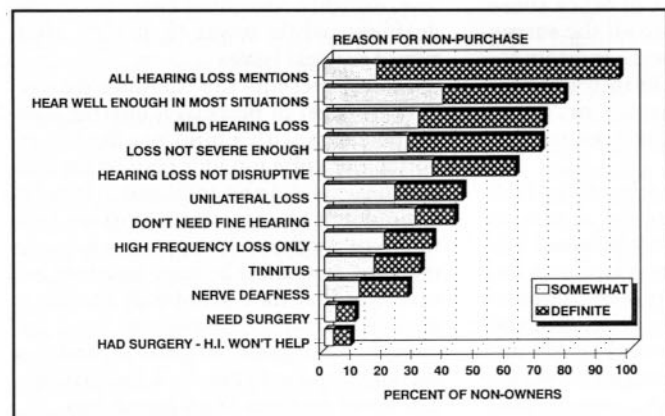


Figure 1. Consumer reasons for not purchasing hearing instruments (hearing loss issues).

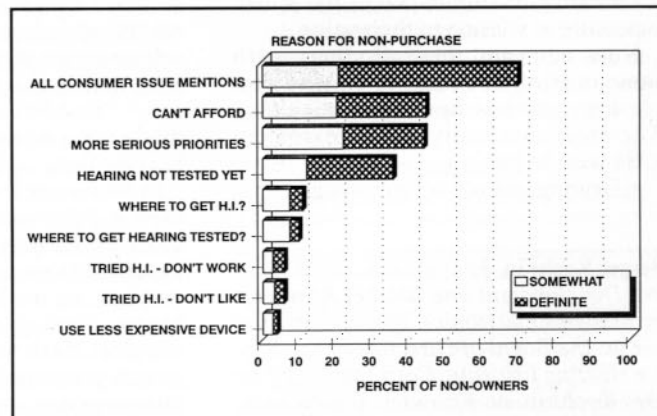


Figure 2. Consumer reasons for not purchasing hearing instruments (consumer issues).

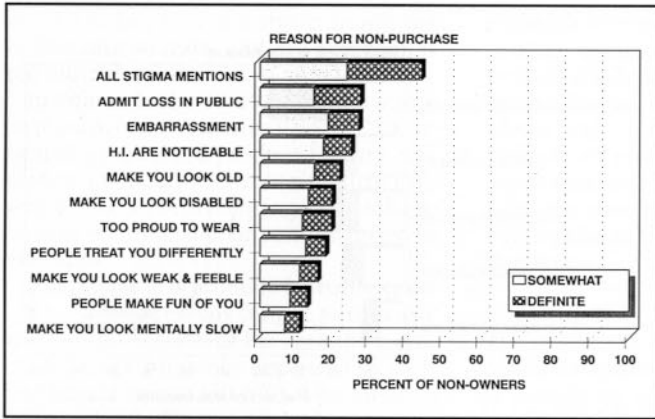


Figure 3. Consumer reasons for not purchasing hearing instruments (stigma issues).

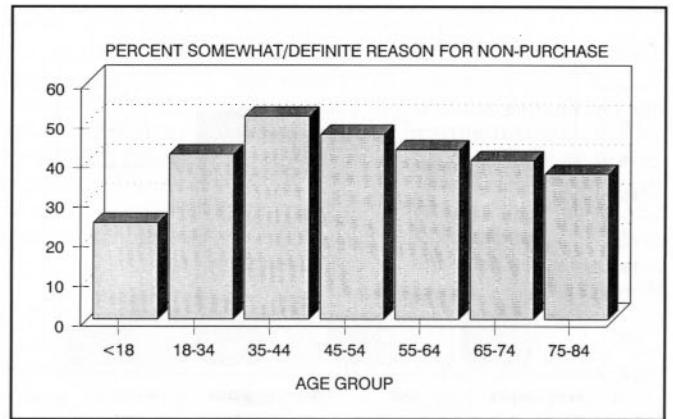


Figure 4. Percentage of consumers, by age group, not purchasing hearing instruments because of stigma.

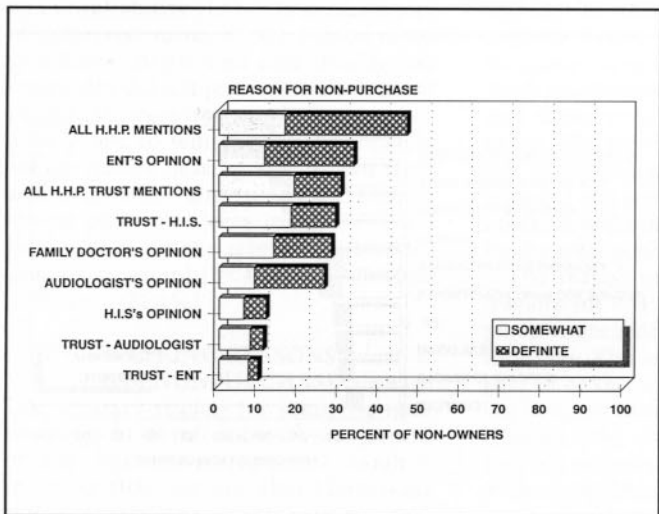


Figure 5. Consumer reasons for not purchasing hearing instruments (healthcare professional issues)

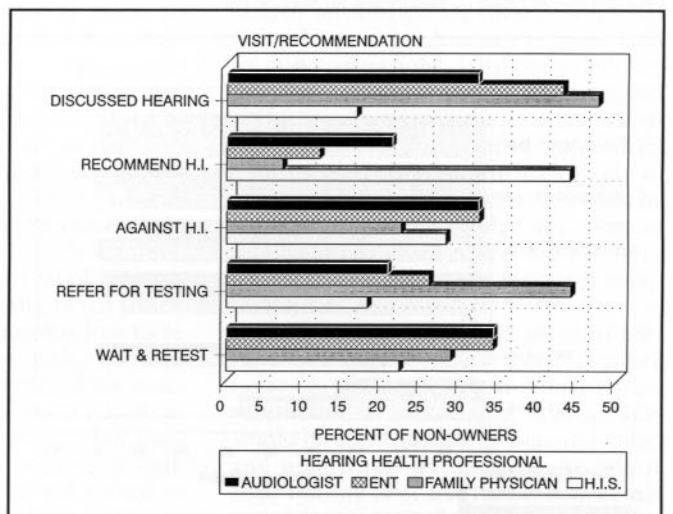


Figure 6. Visits by nonowners to healthcare professionals and recommendations received.

ressing to wear a hearing aid (27%), hearing aids are noticeable (25%), hearing aids make you look older (22%), and hearing aids make you look disabled (20%). Receiving fewer mentions were: hearing aids make you look weak and feeble (16%) and hearing aids make you look mentally slow (11%).

As Figure 4 shows, stigma peaks in the 35-to-44-year-old age group, then declines in a linear fashion. This finding is noteworthy, because stigma is highest in the age group with the largest number of nonowners (3.9 million). In total, 43.6% of nonowners surveyed (representing 8.7 million in the U.S.) indicated that the stigma of wearing hearing instruments had a direct bearing on their decision not to purchase.

Hearing Health Professionals

Among the HIA focus group members, advice from hearing healthcare professionals was the fourth most common reason for not purchasing. This finding was derived from the fact that most of the focus group members who believed hearing instruments could not help their

specific hearing problem said they had been told that by an audiologist or medical doctor. The 1984 HIA survey found that physicians and audiologists gave patients more negative than positive recommendations about hearing instruments.

In comparing the number of negative to positive recommendations, the 1984 study found the following ratios for each category of hearing professional: ear-nose-throat doctors (ENT) (34.2% negative/11.1% positive = 3.1 negatives per positive), family doctors (24.8%/7.2% = 3.4), audiologists (26.5%/15.7% = 1.7), hearing instrument specialists (HIS) (20%/51% = 0.4).

The MarkeTrak survey found that 13.3 million nonowners (67% of the total) discussed their hearing problems with at least one of these four types of hearing healthcare professionals. Slightly more than 9.2 million of these nonowners were influenced not to purchase hearing instruments either by the recommendation of the hearing professional they consulted or by their lack of trust in that professional. As documented in Figure 5, the most common reasons for nonpur-

chase were the ENT's opinion (33%), lack of trust in the HIS (29%), the family physician's opinion (27%), and the audiologist's opinion (26%). The least frequently mentioned reasons were: opinion of the HIS (11%), lack of trust in the audiologist (11%), and lack of trust in the ENT (10%).

Figure 6 shows the incidence of nonowners consulting with hearing professionals to discuss their hearing, and the subsequent recommendations that they received. Nearly half the nonowners said they had visited their family doctor to discuss their hearing. Most of these patients were referred for testing or told to wait and have their hearing retested. However, significantly more patients (22.2% of those consulting with a physician) received a negative recommendation about hearing instruments than received a positive recommendation (7.1%).

We see a similar profile for recommendations from the ENT (32.2% negative versus 11.8% positive) and audiologist (32.1% versus 21.1%). The HIS was the most likely to endorse hearing instru-

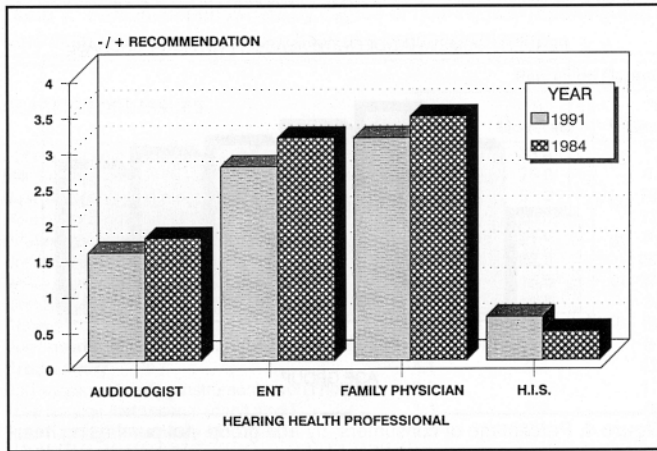


Figure 7. Ratio of negative to positive recommendations regarding hearing instruments given by healthcare professionals.

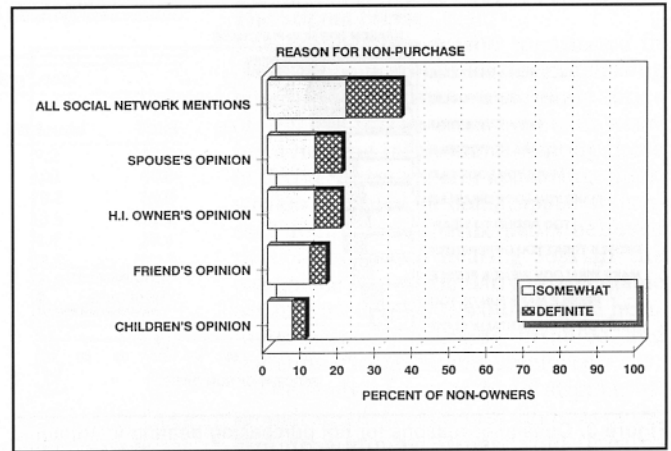


Figure 9. Consumer reasons for not purchasing hearing instruments (social network issues).

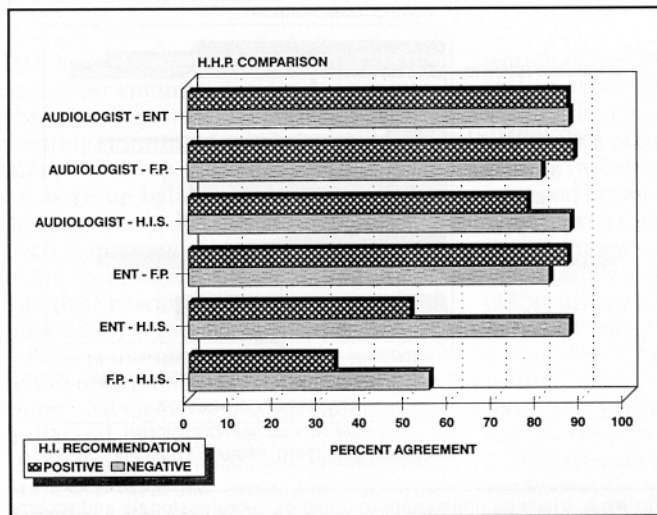


Figure 8. Percentage of agreement among four categories of healthcare professionals in their recommendations regarding hearing instruments.

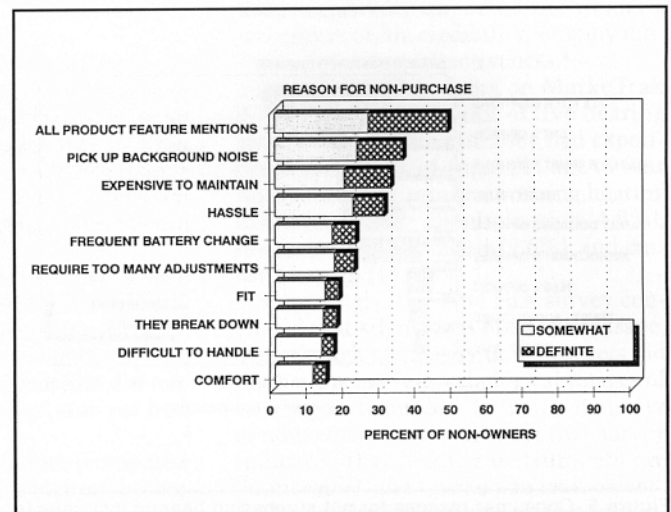


Figure 10. Consumer reasons for not purchasing hearing instruments (product feature issues).

ments (27.9% negative recommendations versus 43.9% positive). The 1991 recommendation profile shown in Figure 7 is remarkably similar to that documented by the 1984 HIA survey.

The MarkeTrak study shows that a total of 4.4 million nonowners have received a negative recommendation from at least one hearing professional. Based on the reports of nonowners who consulted more than one professional about their hearing (Figure 8), it can be seen that there is a high level of agreement between the recommendations of audiologists, ENTs, and family doctors, and much less agreement between the recommendations of hearing instrument specialists and the other hearing health professionals. In view of the large number of negative recommendations given by hearing professionals, gaining a better understanding of the professional recommendation process would appear to be a critical area of research for our industry.

Social Network

The social network was not identified as

an important determinant of hearing instrument purchase or nonpurchase in either HIA study. MarkeTrak (See Figure 9) found that 7.2 million nonowners have been influenced by the opinion of someone in their social network. The persons whose opinions were cited most often were spouse (20%) and hearing instrument owner (19.6%). The least mentioned were friend (16%) and child (10%).

The most significant finding in Figure 9 is the impact that negative word of mouth has on the nonowner's decision about purchasing hearing instruments. Four million nonowners were influenced by the negative opinions of hearing instrument owners.

The Product

The 1984 study did not find evidence that any factor related to the perceived performance of the product, except amplification of background noise, was deterring nonowners from purchasing hearing instruments. This is puzzling when one considers the low percentages of positive attitudes toward hearing in-

struments reported in the 1984 study and summarized in a 1990 publication by Kochkin.⁵

That study reported the percentage of owners agreeing with each of the following statements: Hearing aids . . . help me hear TV/radio (52.0% of owners), help me join in conversations (54.9%), help me hear in a crowd (57.5%), are inexpensive (6.9%), are comfortable (24.9%), do not amplify noise (30.5%), are not a nuisance (22.2%), do not require frequent battery changes (13%), have good tonal quality (24.9%), do not pick up surrounding noise (9%), do not require frequent repair (15%), do not make your ear sore (26.7%), and do not require frequent adjustment (9.9%). Clearly, in 1984, hearing instruments had a severe image problem.

The findings of the HIA focus group differed from the 1984 findings in that they showed that hearing instrument comfort and performance were major obstacles to growth of the market. Among complaints by nonowners were that hearing instruments whistle, amplify back-

ground noise, generate static, humming or buzzing sounds, and are sometimes too difficult to adjust.

In MarkeTrak, 48.2% of nonowners (representing 9.6 million people) mentioned a perceived product feature as a reason for not purchasing (Figure 10), while 55.4% (representing 11.1 million people) mentioned poor performance and low value (Figure 11).

The perceived product features most often cited as reasons for not purchasing were amplification of background noise (35.6%), maintenance expense (32.1%), and hassle to use (30.3%). The product features least often mentioned as reasons for not purchasing were discomfort (14.1%), difficulty in handling (16.1%), and unreliability (17%). In the category of perceived value, about a third of respondents mentioned that hearing instruments did not perform well in noisy situations, were not worth the expense, were prone to whistling and feedback, did not restore hearing, and did not work well in crowds. Value items receiving the fewest mentions were inability to use the product on the telephone (15.6%), unnatural sound (19.4%), and limited usefulness (21.4%).

RANKING REASONS FOR NONPURCHASE

Our primary reason for studying nonowners is to identify obstacles to growth of the hearing instruments market. In doing this, we are also identifying the marketplace interventions that would grow the market for hearing instruments. But, how do we determine what is most important and where we should concentrate the resources of our industry?

We present here three ways of ranking the importance of the various relevant issues, followed by a list of the key obstacles to growth in our market.

Clearly, there are many ways to approach this research (e.g. attitude

research comparing owners with nonowners, conjoint trade-off, multivariate techniques, behavioral intention models, focus groups, in-depth interviews). In MarkeTrak III, we also asked nonowners to write an essay on why they have not purchased hearing instruments. The results of a content analysis of these essays will be the subject of a future article in this series.

Counting The "Definite" Responses

The first method I have used to rank the relative importance of the various issues is simply to accept on face value the number of nonowners stating that an issue was "a definite reason for not purchasing a hearing aid." There is little ambiguity or interpretation in such an analysis. Figure 12 summarizes the issues in major categories for two populations: total nonowners, and total nonowners less those with a mild hearing impairment. The latter group may be closer to our target market. Table 2 lists all reasons for not purchasing hearing instruments in order of the number of mentions by the total population.

The reason most often cited by nonowners for not purchasing is that they perceive their degree of hearing loss to be minimal. The key issues in this area appear to be the actual severity of the hearing loss, the nonowner's minimization of hearing loss, and the perception that hearing instruments do not help people with nerve damage and are not needed in cases of unilateral hearing loss.

Consumer-oriented issues were the second most commonly mentioned type of reason for nonpurchase. Respondents said that they cannot afford a hearing instrument, have more serious priorities, or have not yet had their hearing tested. Knowledge of where to get tested or where to purchase hearing instruments, rejection of the product because of past experience with it, and the use of substitute products were all found to be of rela-

tively minor importance.

The third most important category is the opinion of hearing professionals. A great many nonowners said they have not purchased hearing instruments because their physician or hearing professional told them they did not need them. In rank order, the following professional opinions were the most commonly given reasons for nonpurchase: the opinion of the ear-nose-throat doctor (ENT), family doctor, audiologist, hearing instrument specialist.

The fourth and sixth most important categories of reasons for not purchasing are, respectively, perceived product value and perceived product features (image). The product issues that nonowners mentioned most often are their perceptions that: the product does not perform well in noisy situations, it is not worth the expense, it is expensive to maintain, and that it is generally difficult to use. Hearing instrument fit, comfort, reliability, and sound quality are the least likely to affect the purchase decision. It should be noted that product-oriented objections to purchase are rated higher by the nonowners when the mildly impaired population is excluded.

The category rated fifth most important by nonowners is stigma. The key issues in this category are: hearing instruments are noticeable, hearing aids would be embarrassing to wear in public, and nonowners do not want to admit their hearing loss. The first article in this series demonstrated that hearing instrument sales are highly correlated with the age of the respondent, even when the degree of hearing loss is considered. The same relationship was found in the 1984 HIA survey. In this survey, as Figure 13 shows, the older the nonowners (controlling for degree of hearing loss), the more likely they are to have a strong short-term purchase intent.

The least mentioned areas among all categories of reasons for not purchasing

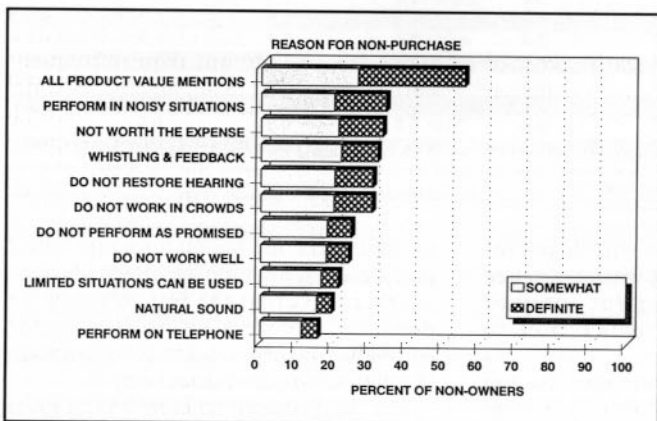


Figure 11. Consumer reasons for not purchasing hearing instruments (product value and performance issues).

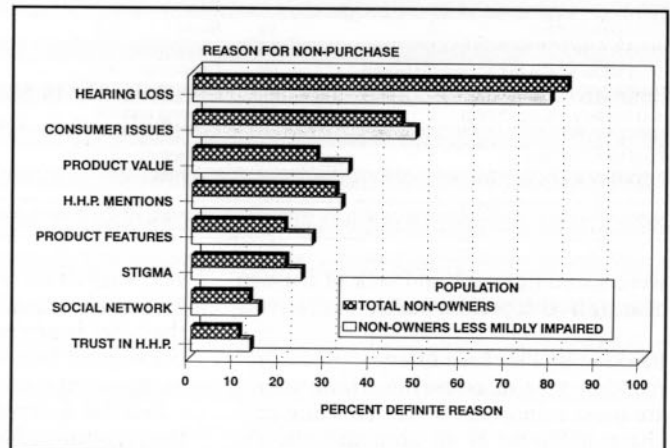


Figure 12. Percentage of nonowners reporting each listed issue as a definite reason for not purchasing hearing instruments.

Table 2. Reasons for not purchasing hearing instruments ranked in order of total mentions.

Reason For Nonpurchase	Category	Percent			Population (Millions)		
		Somewhat	Definite	Total	Somewhat	Definite	Total
All hearing loss mentions	Hearing loss	17.2	79.0	96.2	3.4	15.8	19.2
Hear well enough in most situations	Hearing loss	38.9	39.5	78.4	7.8	7.9	15.7
Mild hearing loss	Hearing loss	31.0	40.6	71.6	6.2	8.1	14.3
Loss not severe enough	Hearing loss	27.4	43.3	70.7	5.5	8.7	14.1
All consumer issue mentions	Consumer	20.5	48.7	69.2	4.1	9.7	13.8
Hearing loss not disruptive	Hearing loss	35.5	26.9	62.4	7.1	5.4	12.5
All product value mentions	Value	26.4	29.0	55.4	5.3	5.8	11.1
All product feature mentions	Product	26.0	22.2	48.2	5.2	4.4	9.6
All HHP mentions	HHP	16.1	30.0	46.1	3.2	6.0	9.2
Unilateral loss	Hearing loss	23.1	22.0	45.1	4.6	4.4	9.0
Can't afford	Consumer	20.0	24.1	44.1	4.0	4.8	8.8
More serious priorities	Consumer	21.8	21.8	43.6	4.4	4.4	8.7
All stigma mentions	Stigma	23.5	20.1	43.6	4.7	4.0	8.7
Don't need fine hearing	Hearing loss	29.8	12.8	42.6	6.0	2.6	8.5
All social network mentions	Social	21.2	14.8	36.0	4.2	3.0	7.2
Pick up background noise	Product	22.8	12.8	35.6	4.6	2.6	7.1
High-frequency loss only	Hearing loss	19.5	15.8	35.3	3.9	3.2	7.1
Hearing not tested yet	Consumer	11.8	23.4	35.2	2.4	4.7	7.0
Performance in noisy situations	Value	20.0	14.1	34.1	4.0	2.8	6.8
Not worth the expense	Value	21.2	12.0	33.2	4.2	2.4	6.6
ENT's opinion	HHP	11.1	21.9	33.0	2.2	4.4	6.6
Expensive to maintain	Product	19.2	12.9	32.1	3.8	2.6	6.4
Whistling & feedback	Value	22.0	9.8	31.8	4.4	2.0	6.4
Tinnitus	Hearing loss	16.1	15.4	31.5	3.2	3.1	6.3
Do not restore hearing	Value	20.2	10.4	30.6	4.0	2.1	6.1
Do not work in crowds	Value	20.0	10.4	30.4	4.0	2.1	6.1
Hassle	Product	21.6	8.7	30.3	4.3	1.7	6.1
All HHP trust mentions	HHP	18.4	11.4	29.8	3.7	2.3	6.0
Trust-HIS	HHP	17.6	10.9	28.5	3.5	2.2	5.7
Nerve deafness	Hearing loss	11.2	16.2	27.4	2.2	3.2	5.5
Family doctor's opinion	HHP	13.3	14.1	27.4	2.7	2.8	5.5
Admit loss in public	Stigma	14.5	12.7	27.2	2.9	2.5	5.4
Embarrassment	Stigma	18.4	8.4	26.8	3.7	1.7	5.4
Audiologist's opinion	HHP	8.6	17.1	25.7	1.7	3.4	5.1
Do not perform as promised	Value	18.2	6.6	24.8	3.6	1.3	5.0
Noticeable	Stigma	17.1	7.6	24.7	3.4	1.5	4.9
Do not work well	Value	18.0	6.0	24.0	3.6	1.2	4.8
Frequent battery change	Product	15.8	6.5	22.3	3.2	1.3	4.5
Require too many adjustments	Product	16.4	5.5	21.9	3.3	1.1	4.4
Make you look old	Stigma	14.6	7.0	21.6	2.9	1.4	4.3
Limited situations can be used	Value	16.6	4.8	21.4	3.3	1.0	4.3
Spouse's opinion	Social	12.8	7.2	20.0	2.6	1.4	4.0
Make you look disabled	Stigma	13.0	6.6	19.6	2.6	1.3	3.9
Hearing instrument owner's opinion	Social	12.6	7.0	19.6	2.5	1.4	3.9
Too proud to wear	Stigma	11.3	8.1	19.4	2.3	1.6	3.9
Natural sound	Value	15.4	4.0	19.4	3.1	0.8	3.9
People treat you differently	Stigma	12.3	5.5	17.8	2.5	1.1	3.6
Fit	Product	13.8	3.8	17.6	2.8	0.8	3.5
They break down	Product	13.3	3.7	17.0	2.7	0.7	3.4
Difficult to handle	Product	12.9	3.2	16.1	2.6	0.6	3.2
Friend's opinion	Social	11.3	4.5	15.8	2.3	0.9	3.2
Make you look weak & feeble	Stigma	10.6	5.0	15.6	2.1	1.0	3.1
Can't be used on telephone	Value	11.2	4.4	15.6	2.2	0.9	3.1
Comfort	Product	10.5	3.6	14.1	2.1	0.7	2.8
People make fun of you	Stigma	8.0	4.8	12.8	1.6	1.0	2.6
HIS's opinion	HHP	6.0	5.4	11.4	1.2	1.1	2.3
Trust-audiologist	HHP	7.6	3.2	10.8	1.5	0.6	2.2
Don't know where to get HI	Consumer	7.2	3.5	10.7	1.4	0.7	2.1
Make you look mentally slow	Stigma	6.6	4.0	10.6	1.3	0.8	2.1
Children's opinion	Social	6.6	3.6	10.2	1.3	0.7	2.0
Need surgery	Hearing loss	3.8	6.0	9.8	0.8	1.2	2.0
Don't know where to get hearing tested	Consumer	7.2	2.4	9.6	1.4	0.5	1.9
Trust-ENT	HHP	7.2	2.4	9.6	1.4	0.5	1.9
Had surgery-HI won't help	Hearing loss	2.9	5.5	8.4	0.6	1.1	1.7
Tried HI-Don't work	Consumer	2.6	3.0	5.6	0.5	0.6	1.1
Tried HI-Don't like	Consumer	3.0	2.6	5.6	0.6	0.5	1.1
Use less expensive device	Consumer	2.6	1.1	3.7	0.5	0.2	0.7

Note: HIS = hearing instrument specialist, HI = hearing instrument, HHP = hearing health professional.

were social network and lack of trust in hearing health professionals.

Ranking By Purchase Intent

Another way of assessing which issues are most important in determining purchase behavior is to compare the responses of nonowners who intend to purchase hearing instruments in the next

year with those of persons who do not intend to purchase hearing instruments in the next four years. An issue could be considered important if it is related to purchase intent.

In Table 3, reasons for nonpurchase and the recommendations of hearing health-care professionals are shown for both one-year purchase intenders and four-year

nonintenders. If a reason for nonpurchase is not related to purchase intent, then we would expect that the percentage of the purchase intenders citing that reason would be roughly equal to the percentage of nonpurchase intenders doing so.

The third column in Table 3 is an index of the relationship between purchase intent and reasons for nonpurchase. The

Table 3. Relative importance of factors differentiating one-year purchase intenders and four-year nonpurchase intenders.

Definite Reasons For Nonpurchase	Category	Percent Nonpurchasers Next 4 Years	Percent Purchasers Next 1 Year	Ratio Nonpurchaser/Purchaser	Weighted Indices	
					Total Nonowners	Total Nonowners Less Mildly Impaired
Audiologist (negative recommendation)*	HHP	12.1	1.9	637	66	100
All hearing loss mentions	Hearing loss	82.7	58.9	140	100	96
ENT (negative recommendation)*	HHP	16.3	3.9	418	59	86
Hear well enough in most situations	Hearing loss	42.5	18.8	226	83	74
Family doctor (negative recommendation)*	HHP	12.7	2.4	529	58	60
Nerve deafness	Hearing loss	14.9	9.7	154	20	48
Loss not severe enough	Hearing loss	44.8	21.3	210	81	45
All HHP mentions	HHP	31.6	20.0	158	43	43
Hearing loss not disruptive	Hearing loss	28.6	14.0	204	50	42
All consumer issue mentions	Consumer	45.9	51.7	89	35	41
Embarrassment	Stigma	9.4	2.9	324	26	40
Admit loss in public	Stigma	13.2	6.8	194	22	36
All stigma mentions	Stigma	20.5	15.1	136	24	36
ENT's opinion	HHP	22.0	12.1	182	34	36
Unilateral loss	Hearing loss	20.7	16.4	126	23	36
Don't need fine hearing	Hearing loss	13.6	7.7	177	21	35
More serious priorities	Consumer	21.0	15.9	132	24	33
All product value mentions	Value	27.2	28.9	94	22	32
All product feature mentions	Product	20.2	19.9	102	18	30
Family doctor's opinion	HHP	15.1	6.3	240	31	28
Hassle	Product	8.6	6.3	137	10	27
HIS (negative recommendation)*	HHP	5.2	1.5	347	16	27
Not worth the expense	Value	11.5	8.2	140	14	26
Audiologist (positive recommendation)*	HHP	3.1	26.6	858	23	25
Audiologist's opinion	HHP	17.0	10.7	159	23	25
Can't afford	Consumer	21.2	23.2	91	17	25
Mild hearing loss	Hearing loss	41.2	22.3	185	66	23
People make fun of you	Stigma	5.2	2.9	179	8	22
Too proud to wear	Stigma	8.8	5.3	166	13	22
Expensive to maintain	Product	11.5	10.2	113	11	20
People treat you differently	Stigma	6.1	3.9	156	8	19
Had surgery—HI won't help	Hearing loss	5.2	1.9	274	12	18
Tinnitus	Hearing loss	14.1	10.1	140	17	18
Do not restore hearing to normal	Value	9.8	7.8	126	11	17
ENT (positive recommendation)*	HHP	2.9	16.9	583	15	16
Fit	Product	3.7	1.9	195	6	15
Need surgery	Hearing loss	6.3	2.9	217	12	15
Performance in noisy situations	Value	12.8	13.5	95	10	15
Make you look mentally slow	Stigma	4.3	1.9	226	8	14
All HHP trust mentions	HHP	10.4	11.7	89	8	13
Make you look disabled	Stigma	6.6	5.3	125	7	13
Do not perform as promised	Value	6.2	6.8	91	5	12
Family doctor (positive recommendation)*	HHP	1.6	13.0	813	11	12
Make you look old	Stigma	6.7	5.8	116	7	12
Pick up background noise	Product	11.7	15.5	75	8	12
Trust—HIS	HHP	9.8	11.1	88	7	12
Do not work well	Value	5.4	6.3	86	4	11
Hearing not tested yet	Consumer	20.3	20.9	97	17	11
High frequency loss only	Hearing loss	14.5	12.1	120	15	11
Noticeable	Stigma	7.3	7.8	94	6	11
They break down	Product	3.5	2.4	146	4	11
Whistling & feedback	Value	8.6	9.2	93	7	11
Can't be used on telephone	Value	3.9	2.9	134	5	10
All social network mentions	Social	12.7	22.1	57	6	9
Difficult to handle	Product	3.0	1.9	158	4	9
Do not work in crowds	Value	9.2	11.6	79	6	9
Frequent battery change	Product	5.4	4.9	110	5	9
Make you look weak & feeble	Stigma	4.9	5.3	92	4	8
Trust—Audiologist	HHP	3.1	1.9	163	4	8
Limited situations can be used	Value	4.3	4.8	90	3	6
Natural sound	Value	3.7	3.4	109	3	6
Require too many adjustments	Product	5.0	6.3	79	3	6
Tried HI—don't work	Consumer	2.9	2.4	121	3	6
Trust—ENT	HHP	2.7	1.5	180	4	6
Hearing instrument owner's opinion	Social	5.8	7.7	75	4	5
Spouse's opinion	Social	6.0	10.6	57	3	5
Comfort	Product	3.3	4.4	75	2	4
Friend's opinion	Social	3.8	5.3	72	2	4
HIS (positive recommendation)*	HHP	4.0	26.6	665	23	4
Children's opinion	Social	2.9	3.4	85	2	3
Don't know where to get hearing tested	Consumer	2.7	4.8	56	1	2
Don't know where to get HI	Consumer	2.3	4.4	52	1	2
Tried HI—don't like	Consumer	2.2	3.4	65	1	2
HIS's opinion	HHP	4.7	3.9	121	5	1
Use less expensive device	Consumer	1.0	1.9	53	0	1

*All data with exception of these variables are based on the percent of nonowners reporting that the issue was a definite reason for nonpurchase of hearing instruments. The *** items are nonowners receiving a negative or positive recommendation for a hearing instrument from a hearing health professional. Note: HIS = hearing instrument specialist, HI = hearing instrument, HHP = hearing health professional.

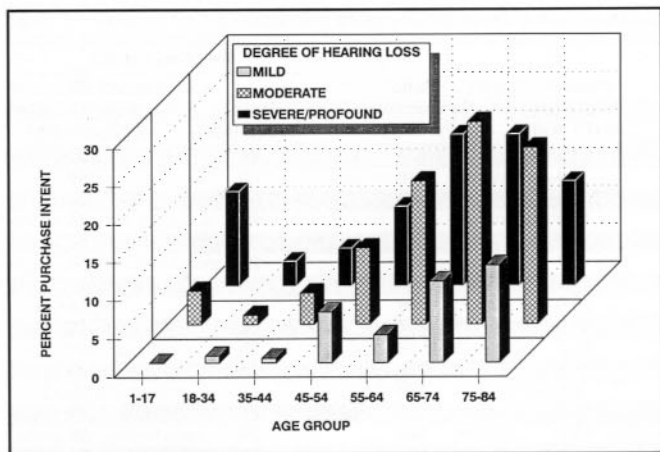


Figure 13. Nonowner one-year hearing instrument purchase intent as a function of age and degree of hearing loss.

larger the index, the greater the correlation between purchase intent and a particular reason for nonpurchase. Using this methodology, Figure 14 shows the relative importance of selected reasons. If one ignores the number of nonowners affected (population size), the most important determinant of purchase intent is whether or not the individual received a positive recommendation for a hearing instrument from, in order of importance, an audiologist, a physician, a hearing instrument specialist, and an ENT.

Most other issues pale in comparison to an endorsement from a hearing professional. A nonowner who received a positive recommendation from an audiologist was nearly nine times more likely to purchase a hearing instrument than a person who had not received such a recommendation.

The next most important factor (not shown in Figure 14) is whether or not the respondent received a negative recommendation.

After recommendations from hearing professionals, the most important factors are stigma (embarrassment, admitting loss in public, hearing aids make you look mentally slow), perception of hearing loss (not severe enough, not disruptive, have nerve deafness, had surgery), and hearing instrument features (fit, difficult to handle, reliability, value).

Using Weighted Indices

Table 3 presents two weighted indices (size of population multiplied by index of correlation): one for total nonowners (column 4) and one for total nonowners except mildly-impaired persons (column 5). Highlights of the weighted indices appear in Figure 15.

In order of importance, the key issues discouraging growth of the hearing instrument market, based on the column 5 index, are as follows:

- Negative recommendations for hearing instruments from audiologists and

physicians.

- The nonowner's perception of his hearing loss and/or his minimization of hearing loss (another face of stigma?).

- The belief that nerve deafness cannot be helped with hearing instruments.

- The stigma of hearing loss (embarrassment, admitting loss in public).

- The belief that a unilateral loss is not sufficient reason for purchase.

- The nonowner's image of the product, especially its value.

CONCLUSIONS

Based on the body of research presented in this series of articles about Marke-Trak, I believe that the major obstacles to growth of the market for hearing instruments are as follows:

1. Fewer than six out of ten consumers are satisfied with hearing instruments. This is undoubtedly having a negative impact on sales.
2. Hearing instruments are negatively positioned in the marketplace as devices for elderly, severely impaired people.
3. Hearing instruments have a negative image, and consumers question their value.
4. The stigma of hearing loss is pervasive, and the hearing instrument continues to be the symbol of this loss. Thus, consumers continue to insist that the product should not be noticeable.
5. Physicians and audiologists continue to give their patients up to three times as many negative as positive recommendations about

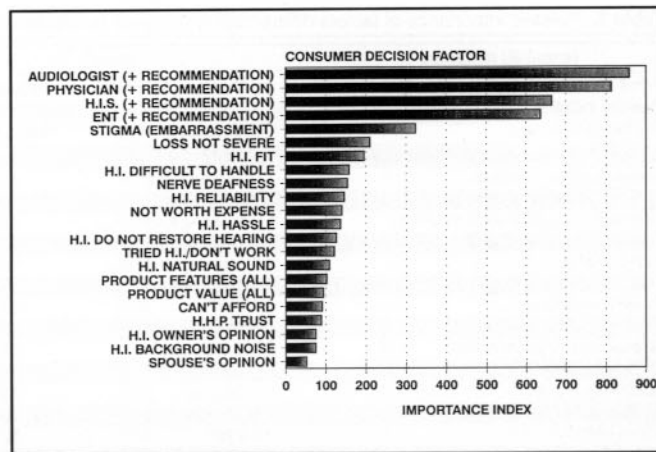


Figure 14. Relative importance of selected factors in influencing hearing instrument purchase intent.

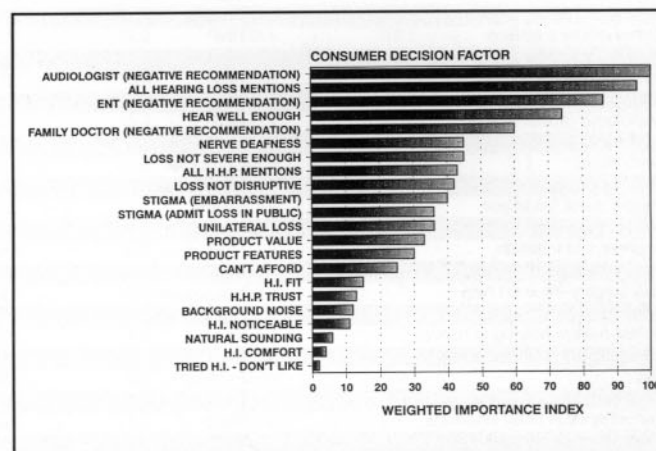


Figure 15. Relative importance of selected factors in influencing purchase intent weighted by size of population less mildly-impaired persons.

hearing instruments.

6. Consumer perceptions persist that unilateral hearing loss, nerve damage, tinnitus, and mild hearing loss are valid reasons for not purchasing hearing instruments.
7. Hearing instruments are not affordable for a significant number of potential consumers.
8. Hearing appears to be a second-rate sense in our visually oriented society.
9. A significant number of consumers have not yet had their hearing tested.

With these obstacles in mind, I will devote a future article in this series to the challenges now facing our industry. □

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