NS-BODY

SAFETY LEADERSHIP TEAM (SLT)

Customer Focus Groups

Prepared By:

Market Opinion Research, Inc.
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BACKGROUND

Purpose
The primary purpose of this research was to explore customer perceptions of current minivan safety, and to gather customer feedback regarding a number of specific safety features.

Method
A total of eight customer focus groups were conducted. Each group lasted approximately two hours. After a brief warm-up and the introductions, respondents were challenged to construct a "wish list" of safety-related features that they would like to see incorporated into their next minivan. . . (safety "concerns" were also encouraged even if the solution to the concern was not readily obvious). After the wish list had run the gambit, a series of proposed safety features were explained to the respondents and reactions to each were gathered. Finally, a brief and general discussion of minivan safety was used to close the meetings.

Locations
The groups were split evenly between Chicago and San Diego. The field work took place between November 3rd and 6th, 1993.

Sample

	CHICAGO		SAN DIEGO		TOTALS	
Minivan Ownership	Males	Females	Males	Females	Males	Females
Chrysler		10	-	8	-	16
Domestic Comp.	4	6	3	7	7	13
Import Comp.	2	8	3	9	5	17
Chrysler	10	-	11	-	21	-
TOTALS	16	24	17	24	33	48
					(41%)	(59%)

Moderator
Pete Swetish of Market Opinion Research, Inc. moderated all eight focus groups and is responsible for this summary.

SUMMARY OF FINDINGS

THE "WISH LIST". . . in (more-or-less) descending order of importance

- Dual front air bags are considered *"di rigueur"* for any future minivan purchase. Current owners - even those who bought their minivan "in spite of no passenger air bag" - are universal in their belief in front seat bag protection. We spoke with no one who felt that they would honestly consider another van if it were not equipped with dual front air bags. It is assumed by the (great) majority that dual bags will simply become standard equipment across all car and truck lines within a very few years.

  - "Dual air bags will become standard."

- Anti-lock brakes is another safety feature that is becoming associated with the "standard equipment" of better vehicles; i.e., the kind of vehicle that everyone buys. ABS was specifically mentioned more often in Chicago than in San Diego, but its inherent worth is generally understood by everyone. In both markets, it is typically thought of as a foul weather (slippery surface) feature.

  - "I want the guy behind me to have anti-lock brakes. (That's why I think they ought to be standard)."

- Side guard beams were volunteered in nearly every group as **extremely** important safety features. Minivan owners see their vehicle as a family conveyance and are therefore very concerned with impact intrusion. . . especially along the sides and in the rear. . . where children typically sit. **Owners are preoccupied with thoughts of their children's safety and speak about "structural strength" and "steel frameworks" to protect second and third seat occupants.** Rear tailgates and sliding side doors seem to be thought of as especially weak and vulnerable points where extra protection is warranted. The general feeling is that there cannot be too much impact protection; one San Diego mother summed it up by suggesting a "cage. . . like the stock car guys have."

  - "Metal construction around the van would convince me (of its inherent safety)."

- "There's extra steel reinforcement on the sides and around the frame. . . I really like that." (Villager owner)

- "The bars in the doors are the big thing for me."

- "I'm more concerned with side impacts."

- "My Aerostar has a truck frame. . . that's partly why we bought it."

- Areas of poor visibility. . . so-called "blind spots" are a huge problem to most minivan owners. It seems to be a generic problem common to all minivans, not just specific models; owners of all brands represented in this sample were heard to complain. There are several distinct problems:

1) The view directly in back of all minivans is obstructed. This is a major concern to most owners, most of whom have children in and around the home. Backing over unseen bicycles and toys left in the driveway was an occurrence reported by over half the participants in these discussions! Naturally, the fear of doing the same to an unseen child is the real terror. The concern was mentioned in every group; a workable solution would surely give a manufacturer an important marketing advantage among these family-oriented buyers. In fact, the idea of some sort of "scanning device" was suggested several times even before the proposed "back-up detection system" was revealed. And one women suggested a low-tech solution: "a fish-eye thingy in the back window." Clearly, this is a safety problem that needs a quick solution.

   - "You can't see small sports cars passing you."

2) Many minivan drivers complained of the more traditional blind spot along the rear quarter panels where cars traveling along either side could not be seen. Pulling out and "cutting people off" were often-heard results. The suggested remedy usually involved an idea for "bigger mirrors" - both rear and side. Wide-angle (convex) mirrors were not universally embraced as a workable solution; several drivers complained that these mirrors distorted distance perception and were therefore unsafe.

   - "Side mirrors. . . make them bigger!"

3) The third area of poor visibility is down along the very sides of the van. This is generally not considered a critical concern. Rather, the complaint seemed to arise only when backing up while turning; gauging the distance from an obstruction to the side of the van is the problem. Thus, this tended to be more of a convenience issue than a safety concern.

- Improvements in current seat belt design were called for by nearly every group. The most common complaint was the "fit" of the shoulder belt across the body of shorter people. . . people such as young children. (Current designs "cut across the neck" of shorter occupants.) Adjustment at the upper anchor pivot for all belts in the van seemed to be the solution. As it is, many parents report that their children often put the shoulder belt in back of the them in order to gain comfort and mobility.

  A second suggestion for belt design was voiced in several of the discussion groups: some type of belt system interlock that 1) would flash a warning to the driver that not all belts had been latched. or 2) would not allow the vehicle to start until all occupants had latched their belt. (Evidently, it is impossible for a car-pool driver to know if all the children are securely buckled. . . a vital concern that needs to be addressed.)

  Finally, several complaints surfaced concerning twisted belts and the lack of middle rear seat shoulder belt availability.

  With concerns for personal safety increasing every day, items having to do with "personal security" surfaced rather early in most discussions. The situation that seemed to cause the most concern was the "walk-up" at night . . . time spent outside the vehicle while unlocking doors, loading packages, etc. Women especially wanted ways to expedite this period of vulnerability. Suggestions included a remote lock system that would also turn on all interior lights (and head lights), lighted key holes, and an easy flip-forward driver's seat to facilitate rear seat package stowage. Many owners already had the remote lock system and considered it an important safety/convenience feature. Certainly, any device or feature that would speed and facilitate vehicle entry should be explored.

- Rear headrests were mentioned in half of the groups as important safety features that should be incorporated in any wish list of safety-related items. Chrysler owners were mostly in favor of the rests even though the obvious visibility problem was pointed out and discussed. A number of respondents suggested removable or "fold-down" rear headrests so that rear sight lines could be restored when the seats were not occupied.

- Owners complained of poor night-time vision through the dark tint window glass currently offered in many of the minivans. Vision - especially through the rear window while backing up - is very difficult. Yet, owners appreciated the daytime benefits offered by the dark glass and so did not want to give up the tinting in favor of clear glass. Several participants suggested brighter back-up lights as a solution. (High intensity back-up lamps were on the prepared list of safety items to be discussed and the idea received fairly enthusiastic response. . . especially from owners with dark glass.) Of course, the best solution would be to somehow keep the sun-load benefits of the tinted glass without sacrificing night visibility.

- The ability to "lock" the passenger power window with a switch accessible only from the driver's seat was a suggestion volunteered in several of the groups. Chrysler-owning parents report that some children can reach the passenger window lift switch with their feet while belted into certain child seats. Once this is discovered, the child (of course) turns the opening/closing of the window into a game with the driver. This is a distraction that the driver wants to do without and that a simple lock-out switch would remedy. *(NOTE: Whether this is a safety-related issue or a sanity-maintenance issue was never fully explored.)*

- In about half of the groups, someone mentioned the need to make their minivan "more stable". . . especially in cross winds. A few Chrysler owners also noted that body roll "around curves" was somewhat excessive. In truth, these opinions were in the minority and more by the way of observations than complaints. The majority of handling-related comments were, indeed, favorable. . . most Chrysler minivan owners liked the "car-like" handling of their vehicle and none cited any unnerving handling-related experiences.

- Several owners suggested improvements to the sliding side door to protect against smashed fingers, hands, and/or feet. Chrysler owners report that the side door detent is not sufficient to hold the door open when the van is on an incline. This can cause an unexpected and sudden closure with injurious results. Of course, fingers can also be caught in a door that is purposely shut and parents are constantly concerned with this possibility. . . especially when many children are involved at the same time (as in a car pool delivery). What is really needed is some type of device that could detect a closure obstruction and prevent the sliding door from completing its close. (Such a device could also be used on the passenger door where many young passengers grab while getting into the sliding door.) Judging from these group discussions, such a safety feature would be considered a **major** enhancement to any minivan.

- Another area where minivan owners suggested that safety could be improved is interior ergonomic layout. The problem seems to be: there is very often so much going on inside the minivan that even simple tasks like reaching for a control or for a toy that has fallen on the floor can create an unsafe condition for the driver. Participants in these groups suggested that items such as spill-proof cup holders, easy-to-find controls (well lit for night identification), and easy-to-reach storage compartments (for errant toys, etc.) would help to keep the driver focused on the job of driving.

- The idea of eliminating or (at least) controlling shattering glass in the midst of an accident came up in two different ways. First, so-called "shatter-proof" glass for the side and rear windows was suggested in several of the groups as an important inclusion to the safety "wish-list." Second, several others wondered whether the side air bags would have the residual effect of protecting occupants "from flying glass." It is a fact that, perhaps because of the large amount of surrounding glass inherent in minivan design, owners - especially parents of small children - share a very real concern about the possibility of being cut by shattered glass. So, while the idea of shatter-proof side and rear glass received relatively few original mentions, the concept of reducing this scary risk was an important one. Addressing the problem of flying glass would also enhance the entire side/rear impact integrity of a vehicle; it would seem to be a logical extension of the "steel beam" impact protection already in place. . . an **extremely** important notion to these owners.

  - (The side air bags seem OK) "But what about the windows?"

  - "Does it help with flying glass?"

Other Miscellaneous Suggestions

(The following is a list of safety-related suggestions that were volunteered in at least two of the groups, but did not represent wide-spread opinion.)

- Easy-to-locate horn button
- Break-away motors that would submarine under the vehicle in the event of a frontal impact. . . this feature was reported as the result of a current TV ad touting this design feature
- 4 wheel disc brakes
- Some kind of "escape" path for rear seat occupants should the sliding side door jam in an accident; suggestions included a rear driver's side sliding door, a "kick-out" rear side window, and a roof hatch like that found on some buses
- Rear air bags
- Child seat head support device for sleeping child. . . Chrysler's '94 reclining child seat was unfamiliar to all but a few participants

CONCEPT EVALUATIONS. . . a report card for several suggested features

- **Outside Signal Rear View Mirrors:** Respondents were shown a brief video tape of the signal rear view mirrors in action. *(NOTE: this was the only feature discussed that had any type of visual aid for demonstration purposes.)* There was typically some initial concern that the signal lights could be seen by the driver and so create some amount of distraction. However, once that notion had been dispelled, the basic concept of the mirrors became quite acceptable. Most respondents could see that, in certain circumstances such as passing maneuvers, the signal mirrors might be more visible to drivers in an adjoining lane and thus enhance safety. The majority, however, felt that - all things considered - this signaling advantage was of marginal real-world value. So, while most would "take it" as a no-cost feature, few would voluntarily pay extra ($100) to have it on their next vehicle.

  - "I wouldn't like to pay extra for it."

  - "OK, but I wouldn't pay for it."

  - "It can't hurt (to have them)."

- "It's kind of gimmicky."

- "That would be nice on the freeway."

- **Back-up Detection System:** This feature helped to solve a rear visibility concern that was often brought up early in the conversations; several individuals, in fact, suggested the detection system prior to it being revealed. The idea that the driver could be warned of any obstruction immediately behind his/her minivan was a huge hit with nearly every respondent involved in this research. The problem of "backing over" unseen objects is a very real problem for minivan owners (especially those with young children who tend to leave toys, etc. in driveways). Anything that can be done to minimize this possibility would be greeted with serious interest.

  - "This should be mandatory!"

  - "Sure! We've probably all run over something". . . while backing out of the driveway.

- **Back-up Alert:** The idea of an audible back-up alert (much like the ones found on construction equipment) received little positive reaction. The concept of warning someone in back of the vehicle that it is backing up seemed well received. However, the noise that would accompany every index of 'reverse' was thought to be too much of a compromise to peace and quiet. The words "obnoxious" and/or "annoying" were used in most groups. (Respondents wondered what the neighbors would think with such vehicles leaving very early in the morning. . . or what the local shopping center parking lot would sound like.) At the very least, customers said that such a device would have to be equipped with an "on/off" switch which, they admitted, would probably be left in the "off" position most of the time.

  - "Obnoxious!"

  - "If you could turn it off. . . like when I was backing out at two o'clock in the morning."

  - "I'm sure the neighborhood would enjoy that one!"

Side Object Detection System: Here again, the concept seemed like a good idea. Most minivan drivers complained of "blind spots" over their shoulders and so welcomed ideas that might address this problem. The problem (again) was the fear that the remedy (in this case, warning signals every time a vehicle was occupying the blind spot) seemed worse than the disease. For most, a better solution was improved visibility through the use of bigger mirrors, thinner B-pillars, etc.

- "I think a good mirror would solve this problem."

- "Just make it so I can see everything."

- ". . . not as important as the one (detection system) going backward."

- **Intelligent Cruise Control:** A system that would automatically decelerate the vehicle to keep a safe distance to the car in front was described. And, while the big majority of this sample owned minivans equipped with cruise control, the reaction to this feature was lukewarm. It was seen not so much as a safety feature as it was a convenience item. The reluctance to embrace the idea stemmed from an inherent reluctance to rely on unknown technology rather than good old fashion driver awareness. Over and over again, respondents worried aloud that such a device would lead to "a false sense of security" and thereby lead to carelessness on the part of most drivers. In that sense, it was perceived as a potential hazard rather than a safety enhancement. On the plus side, however, many people noted that it probably would help solve the major aggravation of cruise control usage: the "hassle" of on-gain/off-again operation on crowded highways.

  - "The problem is that it would give a false security while you're driving."

  - "It's more convenience (than safety related)."

  - "People will get too relaxed. . . you'll be spoiled."

- **Remote and Delay Light-Your-Way:** This item was essentially on most wish lists prior to being revealed as a proposal; it was universally recognized as a major personal safety feature. . . one that most everyone would want to have. Note that respondents added the need for all interior lights to operate with the headlights in order to enhance the overall effectiveness of the feature.

  - "A gadget. But a good one."

  - "Can we get a light around the keyhole too?"

- **Rear Facing High Intensity Fog Lamp:** Failed to generate much interest. Respondents simply did not see much of a need for such a device and worried that 1) it might confuse drivers coming up from behind, and 2) that people would forget and leave it on even in clear conditions.

  - "Would it blind people?"

  - "But where would it be positioned?"

  - "Wrong city." (San Diego respondent)

  - "In front, maybe."

- **Amber Turn Signals:** This was a subject that resulted in lot of "no opinion" votes. And, those with opinions were pretty much split down the middle between favoring red or amber lenses. Bottom line: based on this research, consumers simply do not care.

  - "I don't think it makes any difference, does it?"

- **Bright Back-up Lights:** This was a reasonably popular idea, especially among those with dark tint glass. The two features seem to package well together. . . the dark glass tending to create a visibility problem. . . the high intensity back-up lamps helping to solve the problem.

  - "Yes! To cut through that tint."

  - "Make 'em retro-fitable."

Automatic Tire Pressure Adjustment: This system received more than a fair amount of discussion in nearly every group. Respondents were nearly all agreed that proper tire inflation was an important part of vehicle maintenance and would enhance ride and handling, tire wear, and fuel mileage. There was not, however, universal agreement on the need for this on-board monitoring and adjustment system. Arguments in favor of the system included 1) the importance of proper tire inflation, 2) the convenience of having it looked after automatically, 3) slow leaks would never strand the vehicle, and 4) the on-board compressor could be adapted for other uses. Arguments against included 1) added vehicle complexity (i.e., "something else to go wrong"), 2) tires already checked at every "quick-change" oil visit, 3) cost, and 4) the (perceived) difficulty of purposely over-riding normal inflation specification in the event of carrying heavy loads, using non-OEM tires, etc.

The customer's bottom line on this feature is this: a very worthwhile result (having properly inflated tires), but the perceived complexity and cost ($200) may outweigh the benefit. Several groups suggested a middle ground. . . that the system offer (only) a low pressure warning to alert the driver who would then have to stop and have the tire filled manually. This seemed to provide the really important warning element and, it was presumed, eliminate much of the complexity and cost. At $100, this seemed to be the better offer to those who heard it.

- "They check my tires at Jiffy Lube."

- "The more stuff (on a vehicle), the more potential for trouble."

- "That gets you away from checking your tires (and so may ultimately lead to tire neglect)."

- "You could make the $200 back easily (with increased tire life)."

- "A monitor (only) would be good enough."

- **Automatic Tint Mirrors:** Described as mirrors that would automatically darken when sunlight and/or bright lights hit them (much like photo-gray eye glasses), the response was generally positive. Glare is a problem for minivan owners and anything that can be done to minimize it is generally welcomed. (Several people admitted that they sometimes turn their driver's side outside mirror down to eliminate glare from headlights. . . even though rendering that mirror totally useless!) And a number of respondents volunteered that the idea made so much sense that they figured it would become a "standard thing" in a few years.

  - "That shouldn't be an option. . . that's part of the advancement of technology; it should be part of the car."

  - "Who cares?"

  - "That's OK, if it has a fast response time."

  - "That sounds like it would be standard in a few years."

  - "Makes sense."

- **Rear Headrests:** As reported earlier, rear headrests are considered by most minivan owners to be important safety features that they would like incorporated. This became apparent when, in response to the moderator's caution that headrests would interfere with rearward visibility, respondents quickly came up with solutions to that particular objection. Suggestions included detachable headrests or (preferably) headrests with some kind of fold-down feature that would solve the rear visibility problem when they were not needed. (Leaving the center seats without headrests to create a sort-of viewing tunnel seemed to be a weak compromise that could not <u>really</u> be judged without trying an actual vehicle so equipped.) The point is: the absence of rear headrests <u>is</u> noticed by many Chrysler owners and <u>is</u> the source of some concern.

  - "It would be a good idea to have them on <u>all</u> the seats."

  - "Yes! But could they be smaller?" (Quest owner)

  - "Could they be adjustable. . . up, down, and tilt?"

- **Side Air Bags:** While not embraced unanimously, the concept of side air bag protection provoked a lot of discussion and much interest. The idea was especially interesting because it provided bag protection for the rear seating area and "that's where the kids sit." Even at a given price of $750, most of the interest remained strong. It must be noted, however, that nobody felt that side air bags would or should take the place of side guard beams; air bags would only supplement the beam protection. The bottom line: a majority felt that the bags would be a wise investment, even at $750.

  - "I'd pay $750. . . if they <u>proved</u> they were safe."

  - "Yes! That's where the kids sit!"

  - "I'd rather have reinforced sides. . . if I was choosing priorities on that."

  - "I'd like that rubber room."

  - "I like that idea, because that's where most of us put our kids. I'd rather her hit an air bag than the side of the car."

  - "I still want the reinforcements in the side."

  - "An armored car we're developing here."

  - "Would they save on insurance?"

- **Cellular Phone Accident / Theft Alert:** This enhancement to cellular technology was received with cool reactions. Only a minority of this sample currently had a cellular phone installed in their minivan, but even those who did were less than enthusiastic with this concept. The general feeling was that, in the event of an accident, there would always be "somebody around" to call for help. . . that the opposite situation was so remote as to be nearly impossible. And, in terms of the theft location feature, most respondents knew that similar systems (i.e., Lojack) were available today and thought the value of something like this to be marginal. Finally, respondents were quick to point out that both systems relied on the 911 system to be effective. . . a reliance that seemed problematic to most.

  - "Somebody else will call."

  - "That would be nice, I suppose."

  - "I don't think 911 would support that."

- **Remote Keyless Entry with Panic:** As previously discussed, the concept of expediting vehicle entry was important to nearly all owners. Because this feature seemed to address this need, it was well received by both women and men.

- **Sleep Alert:** While many participants could recall a situation in their life where such a device would have been nice to have, few felt that they had any strong need for it today. Many felt that safety resources would be better spent on more important items like structural reinforcements, rear air bags, etc. The sleep alert was often called a "gimmick "

  - "That should be an option. . . I know people who could use it."

A FEW FINAL OBSERVATIONS. . .

- It may "go without saying," but it's going to be repeated here: safety is an issue that seems uppermost on everyone's mind today. Safety is selling. Nearly every respondent admitted to at least some "research" into the safety of the minivans on their proposed shopping list. Sources for their research include Consumer Reports, government crash test results, ad claims, and conversations with sales personnel. The lesson here should be obvious: a strategy of safety leadership in minivans is most definitely well conceived, but will require more than simply a program of upgraded hardware. To be successful will require that the "safety news" get out to prospective buyers and be supported by bona fide and independent sources. . . such as Consumer Reports and official government crash tests. Customers admit that advertising can be a source for this type of information and so advertising must become an integral part of the overall strategy. Note here, however, that one of the not-so-positive readings from this research was the fact that relatively few of these minivan owners knew that Chrysler's '94 minivan line-up had side beam protection and conformed to 1998 passenger car safety standards. So, although clearly not an advertising recall study, there is at least some suspicion that lack of advertising exposure may be hindering the overall potential of the '94 safety strategy. Food for thought.

- It became fairly obvious during the course of this research that, for many, the primary concern with vehicle safety was focused on the passenger compartment. . . due in part to the (nearly) standardization of dual front air bags. Most of this sample were parents of children in pre-teen years. And most of this sample talked about things like <u>overall structural integrity</u> and side guard beams. . . things that protect <u>everyone</u> in the vehicle. Clearly, the next safety "frontier" is in back of the front seats.

- Throughout this study, respondents kept returning to <u>basic structural concerns</u>. Is the engine mounted in such a way that it won't crush me in the event of a head-on? Will the roof cave in if the van rolls over? Will we survive a serious side impact? Does the rear tailgate have a guard beam? These were the recurring threads that kept running through group after group. Several times the moderator described how a manufacturer could exceed government frontal crash regulations by designing and testing front ends that would survive diagonal frontal crashes. . . as opposed to simple straight-on frontal impacts against flat surfaces. Each of the several times that the technique was described, the entire group seemed to communicate a message of "Yeah, that's the kind of stuff we want to hear." (Again, this study was never meant to be an advertising concept investigation and so this kind of interpretation is, admittedly, a stretch. However, the basic message of structural strength was a recurrent theme in these groups and as such deserves consideration. It is included here for that reason.)

It cannot be over emphasized: vehicle safety is a perceptual thing. . . consumers cannot crash-test vehicles themselves; consumers can only form opinions from inputted data. Volvo, it is conceded by nearly everyone, has become the gold standard of vehicle safety. Yet, when consumers think about Volvos, they do not think about air bags, automatic tint mirrors, or back-up alerts. They think about **the basic structural integrity** of the Volvo design. . . because that's what Volvo has steadily communicated. (Did you know, for instance, that "Volvo has a complete roll cage?") "Gimmicks" are just not part of the image or the perception of what a Volvo is.

- Another small insight into the general tone of the discussions involves a subtle difference between the average man's view of vehicle safety and the average women's. Men, it turns out, tend to think and talk in terms of accident avoidance items; women speak mostly of accident survival features. This may have been the accidental result of a rather small overall sample (eighty-one total respondents). But it may be indicative of underlying thought patterns that may be leveraged in advertising and merchandising efforts. More work is needed here to be sure.

- A final comment regarding the possible contradiction of trying to establish an image of minivan safety leadership and yet not offering ABS as standard equipment across the complete minivan line: respondents were asked to discuss this potential incongruity and opinions were generally split with a slight majority feeling that it would be impossible for a manufacturer to claim safety leadership without offering ABS as standard equipment. However, a sort of "middle ground" emerged in several groups that was agreeable to people on both sides of the issue. . . it would be reasonable for a company that was claiming safety leadership to offer a non-ABS minivan to the commercial market . . . as long as it does not reach the personal-use or "family" market. (One respondent in San Diego suggested an even more simplistic solution: "Hire the Volvo publicists.") Again, it must be pointed out that this research was never aimed at this particular issue and may not fully represent the prevailing sentiment; it is offered here as directional information only.