Executive Summary

Custom Mobile Advertising Study

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InternetHomeAlliance
CABA's Research Council

Prepared by:

ZANTHUS

Executive Summary

Background

Mobile communications technology now promises advertisers the ability to deliver targeted commercial messages to consumers when their behavior can be immediately influenced and converted into a sale. The question is: How open are consumers to receiving these messages—either on their cell phone, or on a device installed in their car?

That is the central question addressed by the Custom Mobile Advertising Study, conducted in May 2007 by Zanthus, an independent research consulting firm, for CABA's Internet Home Alliance Research Council. The study tests interest among target consumers in advertising that is 'tailored to your specific interests, and to your location when you're traveling outside your home.'

This study follows a survey conducted in February 2006, which found that 'location-based advertising' was most appealing to consumers who have high interest in (or experience with) home, car and/or mobile entertainment technology.

Objectives

- Estimate the size of the potential market in the U.S. for specific advertising concepts that could be offered via in-vehicle technology, mobile phone technology, and across both platforms.

    - In this study, the potential market size is defined as the maximum percentage of target consumers who would allow the advertising under ideal conditions (the ability to opt-in and the ability to limit the number of ads), assuming a reasonable incentive, and given full awareness and availability of the offering.

    - To gauge interest in specific types of advertising content and advertising delivery mechanisms (voice, text, etc.) within specific use scenarios.

- To understand consumer preferences for various features, including: connectivity options, user interface, and user profile controls.

- Profile likely adopters of the concepts.

Methodology

This quantitative Web survey was conducted with consumers in the U.S. during May 2007. Adult consumers were recruited into two quota groups: 'tech-savvy' (n=203) and 'vehicle entertainment enthusiast' (n=125). Teens aged 13-17 also were included in the study (n=74).

Specific applications of the Custom Mobile Advertising concept (via cell phone, car navigation device, etc.) were demonstrated via short Flash demos within the Web survey (see example, right).

You receive an incoming text message, right on your cell phone, about a new item that you've expressed an interest in—in this example, a new book.

Executive Summary

Target Consumer Definitions

Three types of consumers were targeted for this research.

Tech-Savvy Consumers

- Meet a relatively high standard for involvement with digital entertainment media, in addition to meeting age, income and mobile phone ownership requirements.

Criteria:

- Annual income of at least $40,000.
- Has broadband Internet access and mobile phone(s).
- Subscribes to cable or satellite TV, or iPTV.
- 18 to 64 years-old.
- Meets at least two of the following digital entertainment technology requirements:
  - Owns a DVR
  - Owns an in-vehicle entertainment system
  - Owns a video iPod or other brand of personal media player
  - Uses a cell phone to listen to music or watch video
  - Downloads digital music files
  - Burns/rips CDs
  - Watches Pay-Per-View or Video-on-Demand movies
  - Downloads movies or other video from the Internet, or watches streaming video from the Internet
  - Listens to digital music at least 8 hrs/month
  - Listens to satellite radio at least 8 hrs/month

Vehicle Technology Enthusiasts

- Meet the criteria for tech-savvy consumers (left), plus demonstrate high involvement with (or interest in) new car technology.

Additional criteria:

- Bought or leased a new vehicle within the last two years, or is in the market to buy or lease a new vehicle in the next six months.
- Has used a navigation system in order to get from one location to another in a vehicle, or is very interested in doing so.
- Listens to CDs, satellite radio or MP3s in the car at least 20 hours per month, or has an installed in-vehicle entertainment system, or has high interest in entertaining children in the vehicle.

Teens

- 13 to 17 years-old.
- Has a mobile phone.
- An adult in the household would allow the teen to have access to custom mobile advertising.

Executive Summary

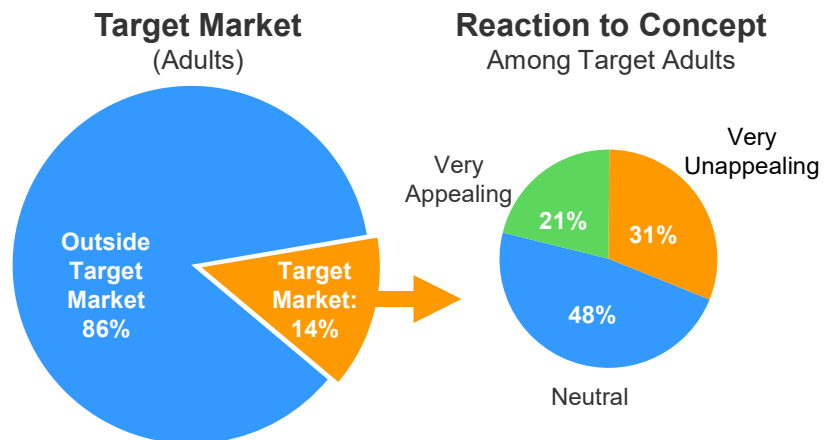## In the target market, two-thirds are open to Custom Mobile Advertising

As discovered in the original 2006 study, consumers who are most comfortable with home, car or mobile entertainment technology make up the most promising initial target market for the Custom Mobile Advertising concept.

- This group, which is the focus of this current study, makes up about 14% of U.S. online adult consumers.

Within this target market, about a fifth (21%) find Custom Mobile Advertising 'very appealing,' and about half (48%) are neutral about it.
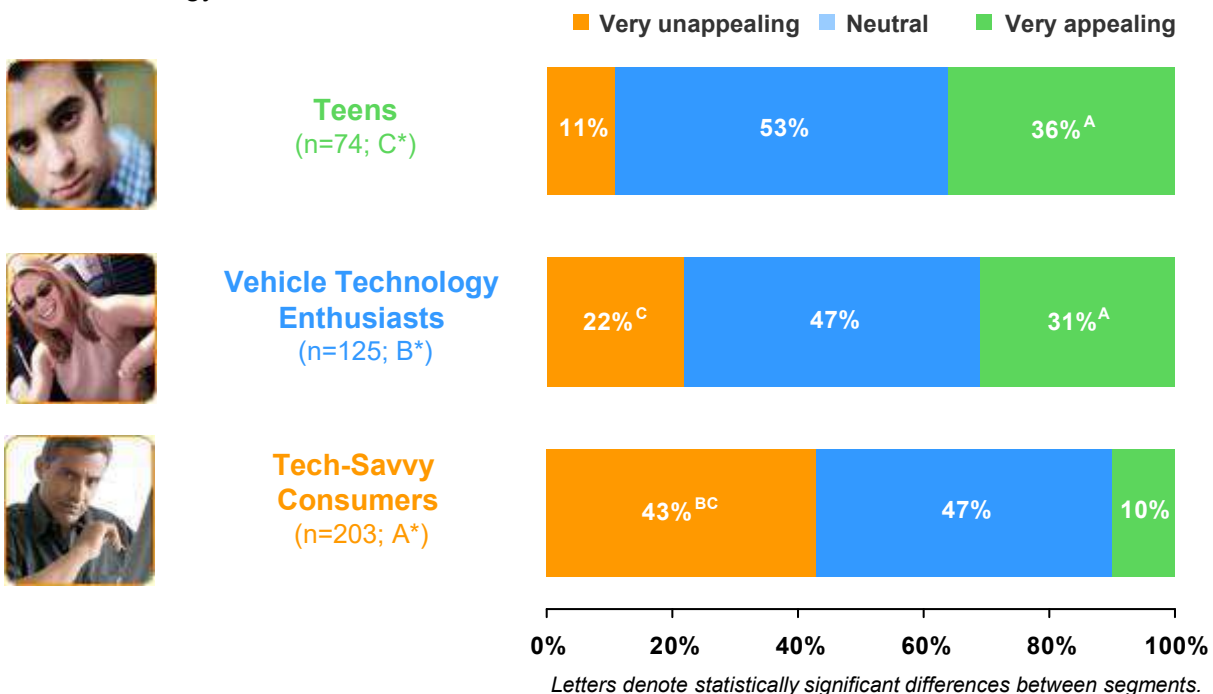
- See the Appendix for the concept description.

The remainder, under a third (31%), are negative about Custom Mobile Advertising.

Target Market
(Adults)

- Outside Target Market 86%
- Target Market: 14%

Reaction to Concept
Among Target Adults

- Very Appealing 21%
- Very Unappealing 31%
- Neutral 48%

Teens and car technology enthusiasts like the concept the most

Adults who like car technology (vehicle technology enthusiasts) like custom mobile advertising more than tech-savvy consumers, who don't have a similar level of experience with, or interest in, car technology.

Legend: ■ Very unappealing ■ Neutral ■ Very appealing

Teens
(n=74; C*)
- 11% | 53% | 36% A

Vehicle Technology Enthusiasts
(n=125; B*)
- 22% C | 47% | 31% A

Tech-Savvy Consumers
(n=203; A*)
- 43% BC | 47% | 10%

0%   20%   40%   60%   80%   100%

Letters denote statistically significant differences between segments.

Executive Summary

Consumers say tailoring content and saving money are top advantages

The ability to tailor ads to personal interests and receive incentives/discounts are the most often-mentioned benefits among both target adults and teens.

Some adults also say Custom Mobile Advertising could assist them in finding goods and services when they are traveling, or when they are in unfamiliar areas near home.

Some teens see it as a way to get up-to-date information, or say it makes finding information easy or convenient.

"I'd learn about good deals for me, things I might not know about, up-to-date information."

Adults want ads about food, especially when on the go; teens say entertainment and clothing

A majority of target adults say they'd want ads about restaurants and grocery stores. For teens, the most popular categories are music outlets, movie outlets and clothing retailers.

A plurality of adults want targeted ads when they are traveling outside their local area. Many also want to receive ads during their commute. For teens, the best times to receive ads are weekends and evenings.
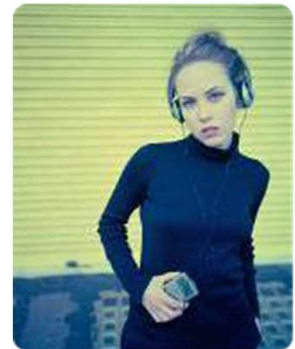
Unwelcome intrusions are the biggest disadvantage

"I don't know if I want to be bothered with that when I am not in the mood."

Clearly the biggest concerns about Custom Mobile Advertising for both adults and teens are the potential for being annoyed by the advertising, or interrupted at inconvenient times.

Some adults are concerned about related costs to them— especially the potential use of cell phone minutes while receiving ads.

Interestingly, only a minority cite privacy concerns (when not asked directly about the topic).
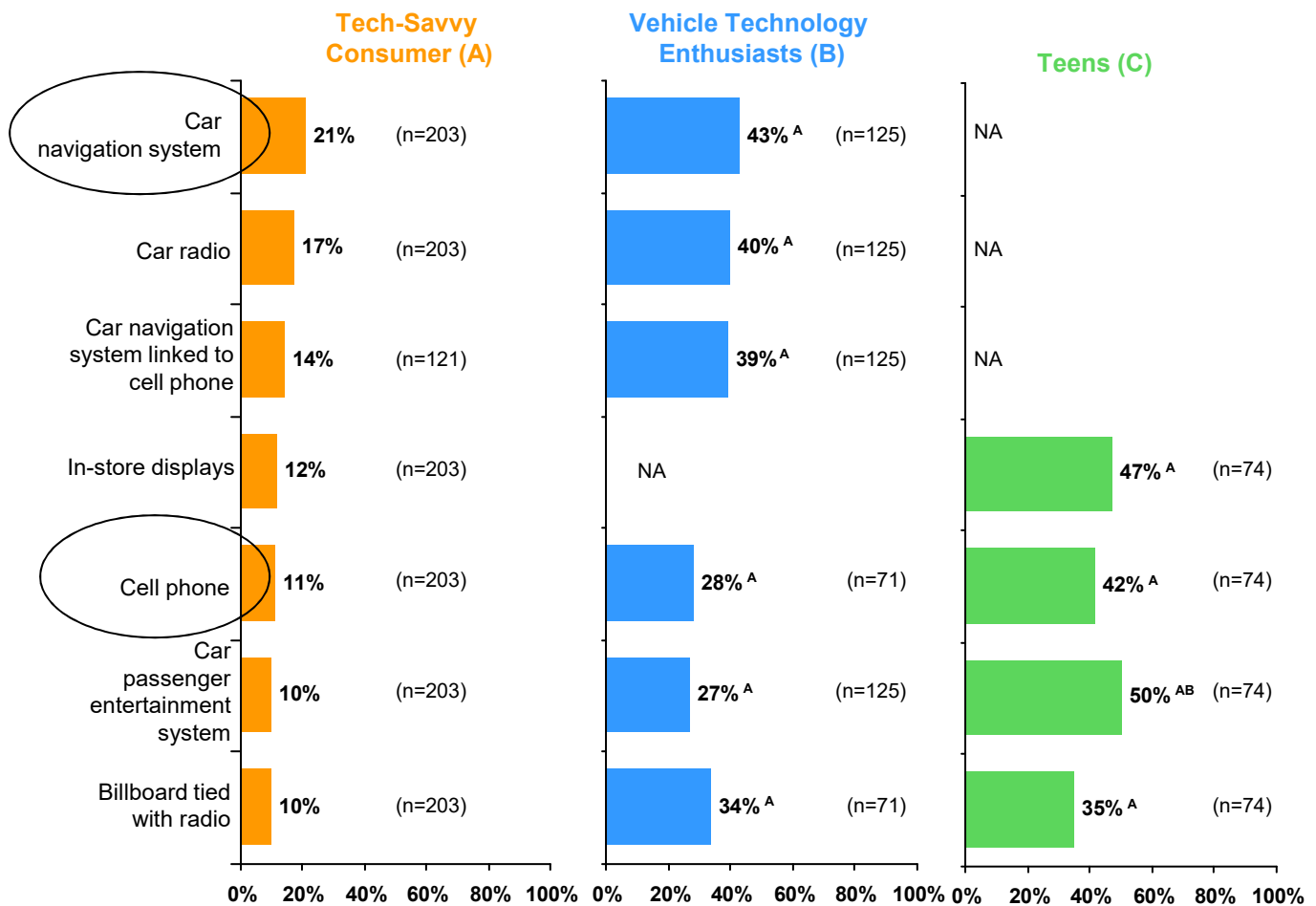
Executive Summary

Adults prefer in-car ads to ads on cell phones; teens are receptive to ads on any device

Among target adults, the idea of receiving ads on a car device that is operated by the driver—particularly a car navigation system—is generally more popular than receiving ads on a cell phone.

Teens are more positive than adults about receiving ads on a cell phone. They also are more enthusiastic than adults about ads on a car passenger video entertainment system and via in-store displays.

Willingness to Accept Ads on Various Devices
% Definitely Would Allow Ads; Top-2 Box

	Tech-Savvy Consumer (A)	Vehicle Technology Enthusiasts (B)	Teens (C)
Car navigation system	21% (n=203)	43% A (n=125)	NA
Car radio	17% (n=203)	40% A (n=125)	NA
Car navigation system linked to cell phone	14% (n=121)	39% A (n=125)	NA
In-store displays	12% (n=203)	NA	47% A (n=74)
Cell phone	11% (n=203)	28% A (n=71)	42% A (n=74)
Car passenger entertainment system	10% (n=203)	27% A (n=125)	50% AB (n=74)
Billboard tied with radio	10% (n=203)	34% A (n=71)	35% A (n=74)

Letters denote statistically significant differences between segments.

Executive Summary

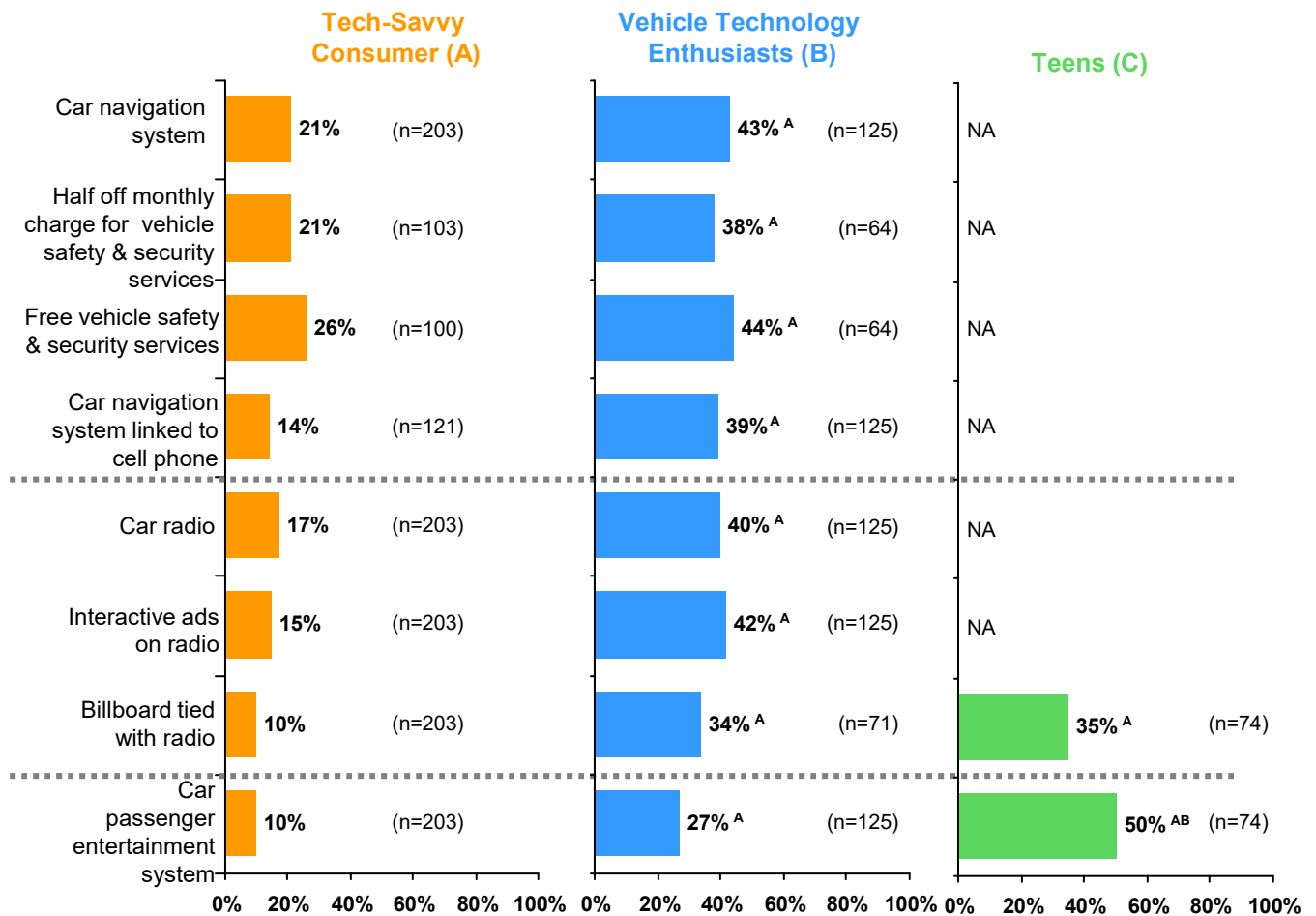## Among car concepts, navigation system ads fare best

Among target adults, the car navigation concept is the most popular concept tested. Offering free or discounted safety and security services doesn't have much effect on interest in it, however. For tech-savvy consumers, linking these ads to a cell phone (so the user can refer to them while shopping) appears to have a negative effect on interest in car navigation ads.

Interest in customized car radio ads is a bit lower than interest in car navigation system ads. Adding an interactive feature that allows 'voting' for preferred songs does not boost interest in car radio ads. Tech-savvy consumers are more negative about allowing billboards to 'broadcast' ads over a car radio than about the basic car radio concept.

Among target adults, allowing ads on a passenger vehicle entertainment system is the least-popular option. However, teens are very positive about the idea.

Willingness to Accept Ads on Car Devices
Under Various Conditions
% Definitely Would Allow Ads; Top-2 Box

	Tech-Savvy Consumer (A)	Vehicle Technology Enthusiasts (B)	Teens (C)
Car navigation system	21% (n=203)	43% A (n=125)	NA
Half off monthly charge for vehicle safety & security services	21% (n=103)	38% A (n=64)	NA
Free vehicle safety & security services	26% (n=100)	44% A (n=64)	NA
Car navigation system linked to cell phone	14% (n=121)	39% A (n=125)	NA
Car radio	17% (n=203)	40% A (n=125)	NA
Interactive ads on radio	15% (n=203)	42% A (n=125)	NA
Billboard tied with radio	10% (n=203)	34% A (n=71)	35% A (n=74)
Car passenger entertainment system	10% (n=203)	27% A (n=125)	50% AB (n=74)

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Executive Summary

For cell phone ads, incentives increase adults' receptivity.
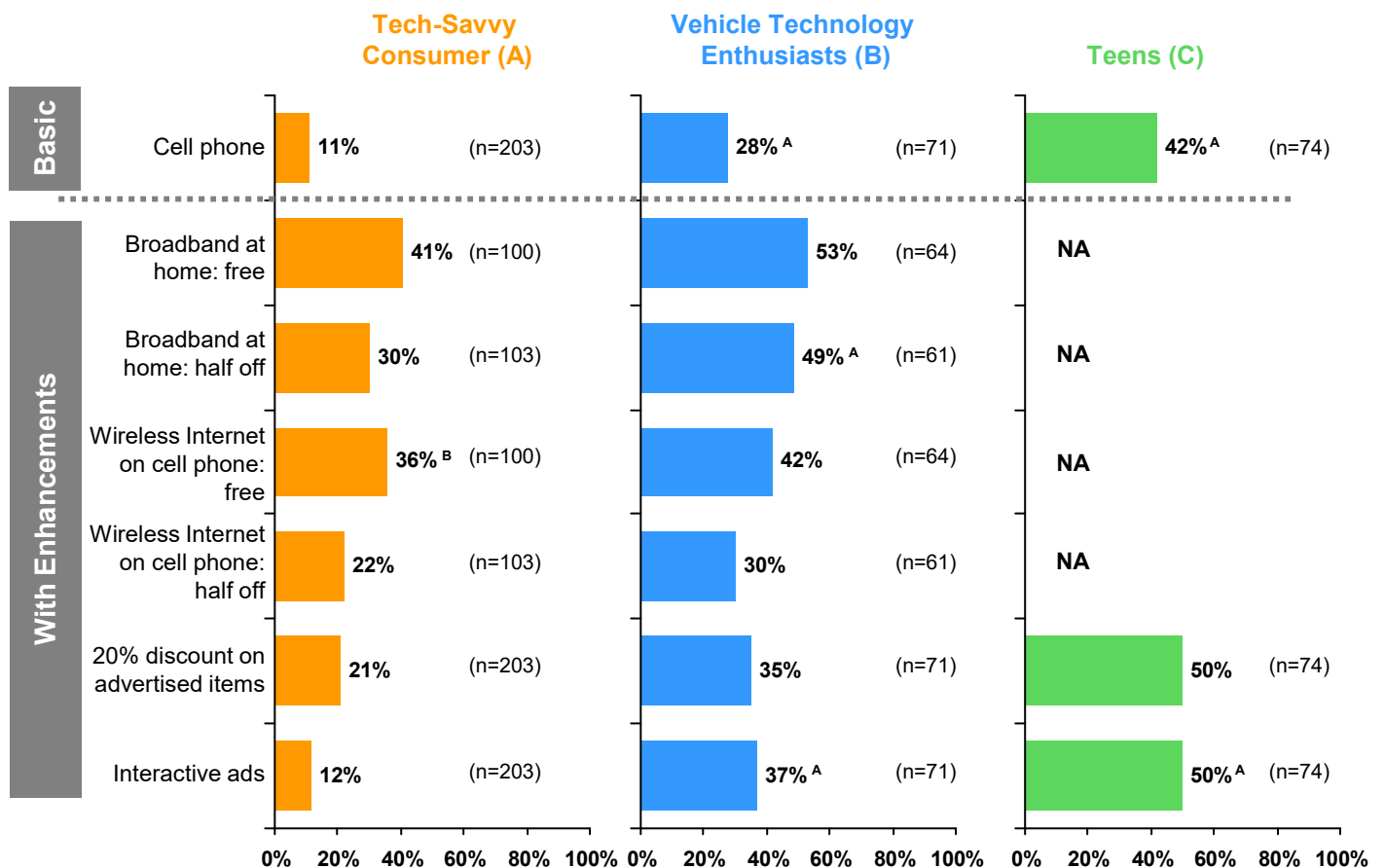**Teens like the cell phone ad concept—even without incentives.**

Among target adults, offering discounted or free home broadband Internet has a large effect on appeal of the cell phone ad concept—particularly among vehicle technology enthusiasts. Other incentives that increase interest (although to a lesser extent) include discounted or free wireless cell phone Internet access and a 20% discount on advertised items.

Teens are more enthusiastic than adults about the cell phone ad concept.

Interest in basic and 'interactive' versions of ads on cell phones (where users can win prizes by taking a quiz) test about the same.

Willingness to Accept Ads on Cell Phone
Under Various Conditions
% Definitely Would Allow Ads; Top-2 Box
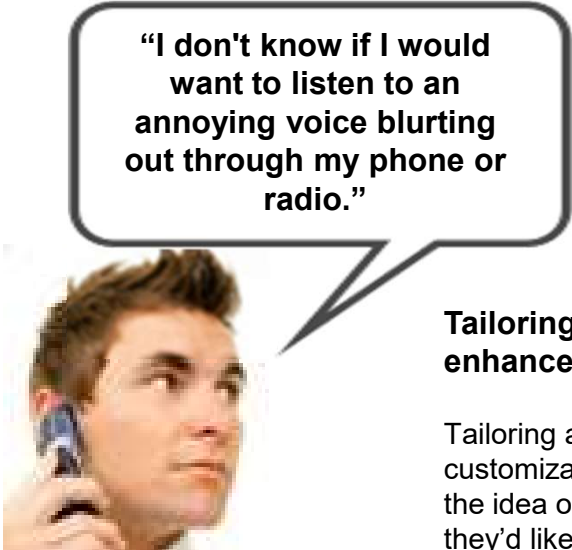
	Tech-Savvy Consumer (A)	Vehicle Technology Enthusiasts (B)	Teens (C)
Basic — Cell phone	11% (n=203)	28% A (n=71)	42% A (n=74)
With Enhancements — Broadband at home: free	41% (n=100)	53% (n=64)	NA
Broadband at home: half off	30% (n=103)	49% A (n=61)	NA
Wireless Internet on cell phone: free	36% B (n=100)	42% (n=64)	NA
Wireless Internet on cell phone: half off	22% (n=103)	30% (n=61)	NA
20% discount on advertised items	21% (n=203)	35% (n=71)	50% (n=74)
Interactive ads	12% (n=203)	37% A (n=71)	50% A (n=74)

Letters denote statistically significant differences between segments.

Executive Summary

Consumers: 'Make sure it's relevant to me, and give me control'

Consumer preferences for ad format, personalization and management reflect their desire for the ads to be relevant to them, and for the entire experience to be easily within their control.

> "I don't know if I would want to listen to an annoying voice blurting out through my phone or radio."

Text-based ads are preferred to voice or video

Voice mail is the least attractive option for receiving ads on a cell phone. Instead, email and text messages are preferred—likely because consumers believe they would be less disruptive.

Tailoring by location, personal profile are best ways to enhance relevance

Tailoring ads based on location is a popular method for ad customization. Vehicle technology enthusiasts and teens also like the idea of using a personal profile to indicate the types of ads they'd like. Least appealing are tailoring ads by time of day or by purchase history.

Many who like ad concept will set up a profile, but won't share credit card history

Half of those who like the Custom Mobile Advertising concept say they 'definitely would' set up a personal profile so that ads could be customized to their interests. Only a very small percentage— less than one in 20—say they 'definitely would NOT' set up a profile.

However, less than a fourth of those who are positive about Custom Mobile Advertising will allow their credit card purchase history to be released so ads can be tailored. In fact, those who like the ad concept are the *only* consumers who would allow their purchase history to be shared at all.

Secure Web site is best for ad storage, review

The most popular method for managing ads (referring to them later, saving or deleting them) is to access them on a secure personalized Web site via any Internet-connected device.

The least-popular method is via a DVR-connected TV using the TV's remote control.

Executive Summary

Interest in cars and entertainment technology are key

Target adults with positive attitudes toward the Custom Mobile Advertising concept are very interested in new cars and several technology-based car products and services: GPS navigation, assistance services like OnStar and in-vehicle entertainment for children.

Likelihood to buy a new car in the next year also is relatively high among those who like the Custom Mobile Advertising concept. This group is likely motivated to get a navigation system in their car, and considers Custom Mobile Advertising a way to get incentives or save money for doing so.

Those who like Custom Mobile Advertising also are very likely to engage in a variety of entertainment-related behaviors on their computer or a cell phone, watch video on a portable media player, or access the Internet on their TV.

Young adults like the idea more than older consumers

Overall, younger target adults—those 18 to 34 years old—are more open than older adults to the idea of Custom Mobile Advertising under certain circumstances:

- They are more likely to say they 'definitely would' allow ads if offered various types of Internet and/or entertainment media-related incentives.

- They are less negative overall about the idea of allowing their purchase history to be shared for the purpose of customizing ads to their interests.

- And, they are more likely to consider allowing their purchase history to be shared when they are offered media incentives such as discounted music, movies, or TV programming.

Conclusions & Recommendations

Findings: **Consumers want relevance, personalization**

- Target consumers want to receive information that is personalized to their interests and therefore relevant to their lives. Enhancing relevance helps consumers cut through information clutter to more quickly and easily find what they need.

- As a result, Custom Mobile Advertising works best when perceived as something other than typical advertising. It must offer people a new way to receive targeted, value-added content, at times when they really do want it.

Recommendations: **Enhance relevance by focusing on navigation services, ease of personalizing ads. Offer profile as a networking opportunity for young adults.**

- Launch Custom Mobile Advertising with car navigation services. Navigation-related advertising meets a largely unmet need for customized information in real time while people are on-the-go.

- To enhance receptivity to cell phone ads, provide cell-phone based navigation services through a service like Google Maps.

- Personalization means more than just catering to static interests. It means allowing users to easily update their profile, providing a way to explicitly state what they are currently *shopping for*, rather than just indicating what they are *interested in.*

  - Provide secure profile access through any Internet-connected device so consumers can easily update their profiles when they want. While many want to maintain their profile via a PC, younger consumers also like having cell phone access.

- Use profiles to capitalize on interest among young people in social networking - provide opportunities to connect with others who express similar interests ("Go to this Web page to join a discussion with others on this topic.") This will help in targeting teens and young adults, who tend to be more interested in Custom Mobile Advertising in general.

Conclusions & Recommendations

Findings: **Consumers want to be in control**

- Consumers want to control how and when they encounter advertising.

- Resistance to Custom Mobile Advertising is strongest when ads are perceived as intrusions on consumers' daily lives, leading to loss of control over situations where they currently have control (i.e., cell phones).

- Few consumers say they will allow their credit card purchase history to be shared for the purpose of customizing ads – this feeds into a sense of loss of control and invasion of privacy.

Recommendations: **Make control easy; address privacy concerns**

- To help position the experience as personalized and controllable, incorporate voting buttons so users can 'teach' the system which times/ads are welcome, and which are not.

- Incorporate other optional interactive features/feedback loops to bring users into the experience if they so desire, fostering a sense of control. For example, invite users to participate in surveys or post reviews of product/services in real time.

- Especially for cell phones, tie ads to Internet content search ('pull' vs. 'push' advertising), to reinforce a sense of control and reduce concerns about intrusions at inconvenient times.

- Allow users to postpone exposure to ads until a more convenient time, if desired. For phones, text-based formats (email, text messages) are best. Make it easy for users to review ads later online if they wish.

- Privacy concerns could pose significant problems. Potential exists for increased regulation regarding handing of personally identifiable information. Demonstrate best practices in this area; get certified/audited by independent parties to demonstrate trustworthiness.

- To reduce privacy concerns, allow users to share purchase history from sources other than credit card companies—such as individual retailers.

Conclusions & Recommendations

Findings: **Consumers want something in exchange for allowing ads**

- Consumers are much more open to Custom Mobile Advertising when incentives are offered, and they see it as a way to save money on the products and services they are interested in.

Recommendations: **Provide meaningful incentives: Web access, media services, discounts on advertised items**

- Provide incentives and discounts for allowing customized ads, and for acting on advertised information. For example:

    - In exchange for accepting ads, offer discounts on home broadband Internet, or even iPTV, which allows personalization and control of TV content via broadband.

    - Offer discounted Web services on cell phones in exchange for viewing ads.

    - Offer value-added data services to consumers with 'regular' cell phones as incentives. For example, offer email via services like Teleflip or Emblaze, which nest ads in with emails.

    - Offer trial subscriptions with interactive media services like Pandora as incentives to increase the appeal of cell phone and car radio concepts, especially for younger consumers.

    - Provide discounts/offers that are good only for a limited time, for example, if the user sends a text message with a certain code.

    - Offer discounts on items of highest interest to target consumers: generally restaurants/food and entertainment (music, video games, movies), and items they are actively shopping for.

- Emphasize that cell phone plan minutes will not be used in the process of receiving or reviewing ads.

About the CABA Internet Home Alliance Research Council

The CABA Internet Home Alliance Research Council is a cross-industry network of leading companies engaged in collaborative research to advance the connected home space. The Alliance's research projects enable participating companies to gain important insights into the connected home space and leverage those insights into viable new business opportunities. Internet Home Alliance Research Council is part of the Continental Automated Buildings Association (CABA), a not-for-profit industry association that promotes advanced technologies for the automation of homes and buildings. For more information about the Alliance, please visit www.caba.org/iha.

About Zanthus

The study was conducted by Zanthus, a market research consulting firm specializing in consumer technology and electronics research. Zanthus is well-known for its commitment to rigorous research methods and analytical techniques. The firm also offers strategic consulting and Web design services. Zanthus is located in Portland, Oregon. For more information, visit www.zanthus.com.

Respondents reviewed the following description of the basic Custom Mobile Advertising concept before answering survey questions.

Custom Mobile Advertising is advertising that's tailored to your specific interests, and to your location when you're traveling outside your home.

Advertising may be sent to you on your cell phone (or smart phone/PDA), your car radio, car satellite TV entertainment system, or car navigation system. Ads may come in the form of audio, text or video, depending on the device receiving them.

In some cases, you can choose to store the ads to review them later on any of these devices, or on your home PC or TV. In addition, customized ads may be presented to you via electronic displays in a retail store.

You would 'opt-in' to this kind of advertising, which means that you would provide a third-party, like a cell phone service or satellite TV service provider, with permission to present these kinds of ads to you.

A minimum of two advertisements per day would be sent to you, but you could limit the number beyond that if you wanted to. You would not be able to skip or fast-forward through the ads.

You can use any or all of the following approaches for tailoring the advertisements— it's all within your control:

- Ads may be **tailored to your personal interests**. You 'opt in' to receive only the types of advertisements you want to hear about (for example, your preferred categories of restaurants, retail stores, music, TV shows, movies, etc.).

- Ads may be **localized** so that you hear or see information and offers from surrounding merchants when you're driving or walking in the area.

- Ads may be **tailored by the time of day**. For example, you might hear ads about lunch when you're in proximity to restaurants around noontime.

- Ads may be **tailored based on your purchase history** (much like Amazon.com makes recommendations about books given past purchases)—but only if you wish to do so.

You may receive some type of incentive in exchange for accepting Custom Mobile Advertising. These incentives might include discounts on products advertised, discounts on service fees, service upgrades or additional features, or free cell phone minutes.

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