

Harman's Range of Products, Not Quality, Differentiate It

Companies: ETR:BMW, ETR:DAI, ETR:VOW, F, GM, HAR, TM, TYO:6503, TYO:6632, TYO:6816, TYO:7203

April 5, 2013

Research Question:

Does Harman International possess a sustainable competitive advantage to break out from competitors and become a more integral player in the car audio and infotainment marketplace?

Summary of Findings

- The main competitive advantages of [Harman International Industries Inc.](#) are its brand name recognition by the industry and knowledgeable consumers, its entrenchment with auto manufacturers, and its range of products that will allow it to penetrate markets outside the luxury market.
- All three suppliers are positive about Harman's ability to generate infotainment revenue of \$500 million in five years.
- But all silos report that the car audio and infotainment space is crowded with competitors. Harman does not differentiate itself from others in terms of technology or quality.
- Auto makers like [BMW AG](#) (ETR:BMW), Daimler AG's (ETR:DAI) [Mercedes-Benz](#), and [General Motors Co.](#) (GM) are already partnering with [AT&T Inc.](#) (ATT) to provide bandwidth and connectivity. Harman and its competitors may be forced to align their own specs with the networks of telecommunications companies.
- Harman's brand is not visible on many of its products, and average consumers are unaware of the brand's integration in their cars. The company would benefit from more branding within vehicles.
- One supplier source believes smartphones won't replace Tier 1 suppliers and consumer technology in cars. Moving forward, technology will be embedded in the automobile rather than be part of a lackluster plug-and-play option.

Silo Summaries

1) SUPPLY CHAIN

All three suppliers were positive about Harman's trajectory to reach infotainment revenue of \$500 million in five years. Harman is already an integral partner with OEMs in the auto market which, according to two sources, will enable the company to penetrate the low- to mid-priced markets, as well as continue to gain market share in the luxury market. One source notes many of the Harman components in cars are not identifiable as Harman products.

2) CAR MANUFACTURERS

Our three sources believe Harman's strengths lie in the diversity of its systems and hardware, its responsiveness to market demands, and Aha radio. But one source sees no competitive advantage for Harman and another points to a plethora of competitors in the market. Connectivity is becoming a standard feature versus an upgrade, particularly in premium brands, which is a positive for Harman.

3) AFTER MARKET SHOPS

Two of four sources report Harman's main competitive advantage is its name-brand recognition and marketing. One source believes Harman has no competitive advantages among a sea of competitors, and the fourth had no comment on the topic. There are a plethora of competitors, some with better quality products. One source reports Harman is priced high for its quality and another source says Harman produces an average product. One source reports Harman is a poor partner for aftermarket shops because of the low margins aftermarket shops receive.

4) INDUSTRY SPECIALISTS

Harman's strengths are in its scalable platforms, which will facilitate growth in entry-level products. One source notes that Harman's quality does not set it apart and the company has gone through an innovation dry spell, while the second source says Harman has no special competitive advantages. Both sources say Harman faces stiff competition from a number of competitors.

5) COMPETITOR

This competitor sees Harman gaining market share in infotainment, but growth will be slow and may be at the expense of quality to reach the mid- and entry-level market. Competitors offer comparable quality at equal or less expensive price points.

6) CUSTOMER

This car-audio aficionado would buy Harman's infotainment system based on its advertised features. She has had Harman speakers in past vehicles and been pleased with them.

	HAR's Brand Recognition a Competitive Advantage	HAR's Quality a Differentiator
Supply Chain	↑	↓
Car Manufacturers	↑	↓
Aftermarket Shops	↑	↓
Industry Speciallsts	↑	↓
Competitor	N/A	↓



Harman International Industries

Background

Harman announced on its latest earnings call the formation of its [infotainment services business](#), which will be less dependent on automotive production cycles and have margins that are two to three times higher than the company's current infotainment system business. Harman believes the new business can increase from \$100 million in sales to \$500 million in five years, as it looks to penetrate its installed base of 15 million vehicles that already have a Harman infotainment unit.

Harman faces tough economic conditions and a slowdown in the automotive sector in Europe, which caused a net sales decline of 6% year to year for the company's most recent quarterly earnings. There is also the threat from smartphone-based systems, which may go direct to the OEMs or partner with Harman but squeeze its top line. In anticipation of these challenges, the company is cutting jobs and implementing restructuring initiatives, as well as expanding its scalable platform to reach more critical mass at the entry- and mid-level spaces.

Ten leading automakers from Asia, Europe, and America will offer [Aha Mobile](#) by the end of the year. Furthermore, Harman's car audio solutions are beginning to launch in many client vehicles, such as BMW and [Toyota Corp.](#) (TYO:7203/TM), and the company should start to reap benefits towards the second half of the year and in 2014. It was recently [announced](#) that Harman will provide Ferrari in-car speech control by integrating Apple Inc.'s (AAPL) [Siri](#) into the latest Ferrari FF model.

CURRENT RESEARCH

In this next study, Blueshift assessed whether Harman has competitive advantages that set it apart and help grow market share in auto audio and infotainment.

Blueshift employed its pattern mining approach to establish and interview sources in seven independent silos:

- 1) Supply chain (3)
- 2) Car manufacturers (3)
- 3) Aftermarket shops (4)
- 4) Industry specialists (2)
- 5) Competitor (1)
- 6) Customer (1)
- 7) Secondary sources (5)

Blueshift interviewed 14 primary sources and included five of the most relevant secondary sources focused on the expanding connected car market, a large emerging market in China, increased competition from mobile network operators, Harman's focus on international expansion, and its launch of a new infotainment system in Europe.

Next Steps

We will continue to monitor Harman's market penetration in low- and mid-tier autos and determine if its market penetration at these price points comes at the expense of quality and/or brand esteem. We will monitor the actions Harman takes to make its brand more visible to the consumer, as several sources noted the brand is not visible to the average consumer's eyes (in Toyota vehicles, for example). Finally, we will assess if Harman's infotainment revenues are on track to reach \$500 million in five years.

Silos

1) SUPPLY CHAIN

All three suppliers were positive about Harman's trajectory to reach infotainment revenue of \$500 million in five years. Harman is already an integral partner with OEMs in the auto market which, according to two sources, will enable the company

Harman International Industries

to penetrate the low- to mid-priced markets, as well as continue to gain market share in the luxury market. One source notes many of the Harman components in cars are not identifiable as Harman products.

► Executive of an international traffic information provider and driver service to vehicles

Harman is already an integral player in the car market, partnering with Toyota for factory install audio options and German automakers for high-end systems. Harman's brand name is an advantage, but it is generally on equal footing with competitors and all are struggling to navigate a market in flux. Automobile OEMs will dictate how the connected car evolves and whether infotainment systems become standard equipment or an add-on option powered by smartphones and subscription services. Harman's growth trajectory for its infotainment system is on target and plausible. Data generated by a connected car represent a huge opportunity that already has OEMs, [Google Inc.](#) (GOOG) and [Telco Systems Inc.](#) carriers jockeying for control.

- "Harman already does have a solid presence in the automobile segment; it's just that many are not aware of it because their brand is not apparent. They work with Toyota for factory install and they also work with a number of German automakers."
- "The auto industry ... may work with different brands for different models. The tier 1 suppliers work with Harman, but they also work with [Johnson Controls](#) [Inc./JCI] and [Denso](#) [Information Technology], a Japanese company that makes infotainment systems. Toyota works with Harman but they also work with Denso. Most OEMs like to use different suppliers for different makes and models, and it's a good approach because it keeps people honest and market more competitive. There is less price pressure. If you don't like a supplier product or price, you just switch."
- "Both Denso and Harman execute well and both are doing a good job, but at times both struggle. Harman historically is known for its high-end stereo and loudspeaker systems and that plays to a market advantage, especially when it comes to connectivity."
- "The trend for connectivity is turning more toward applications [software/platforms], and some see a future where there is no radio at all in the car. It's not that the radio would go away. But the way we are used to experiencing the radio would go away. Everything would go through an IP[Internet protocol]-based system to achieve connectivity, and beyond that you would bring the connectivity in through the center stack [hardware]. Harman has a heritage of providing high-end audio and sound through sophisticated loudspeakers. Harman was more about the way in which we listened to radio with surround sound. But more and more, we see that the automobile experience is about bringing service into the car. So the traditional way that Harman participated and where Harman had a competitive advantage is now not as critical to auto entertainment as before. That means Harman will face challenges as they go forward. But that's also true for all of their competitors. It's a level playing field."
- "Now it's about digital information, interaction, and connectivity. Harman's challenge is not unlike any other supplier. It used to be all about the hardware. Now it's about the hardware and the software. Part of the challenge for Harman and others is design and build-out delay. Traditionally when automakers worked on a new vehicle model, it took five years from design to showroom. Today it's closer to three years, which sounds great, but when you think about iPhones, for example, they get software updates every six months or even every three months. How can the engineers create a current experience when they do not now how the landscape will look in three years?"
- "Another problem is putting an app on an information unit for added value. Maybe Pandora won't be the hot new thing down the road. A lot of what you see in a vehicle happened three to five years ago. That's why the automobile OEMs are moving to headboard units, essentially a dumb terminal with just a screen that enables connectivity. Then you can just download the navigation system to the screen. It's much simpler and cost effective. Why pay \$500 to \$1,500 for an in-car system when you can download an app to your smartphone for free? In a certain sense, this may be the simplest and best thing for Harman and others. They don't have to build an entire entertainment and navigation unit for a complete infotainment system. But they still have to engineer connectivity that will bring infotainment into the vehicle."

More and more, we see that the automobile experience is about bringing service into the car. So the traditional way that Harman participated and where Harman had a competitive advantage is now not as critical to auto entertainment as before. That means Harman will face challenges as they go forward. But that's also true for all of their competitors.

*Executive
Intl. Traffic Information Provider*

Harman International Industries

- “There may be different ways the connectivity comes in to the vehicle. For the mid-level models they may just develop a screen with navigation connectivity. But for the high-end models they may create a highly engineered infotainment system in the car. So Harman and Denso may have to offer both to accommodate different models.”
- “Things are challenging for Harman and others. The industry is in transition, in flux. But things may end up being simplified, depending on how the connected car evolves. Do they [Harman] engineer a sophisticated infotainment system or just a gateway? We don't yet know. That's why a company like Ford [Motor Co./F] has developed a certification program for application development. If you want to work with Ford, you must create a set of bits that allow a system to get information. If it meets certain designated specs, Ford will certify. It's the subscriber model versus the one-time buy. For example, traffic is a subscription service on top of navigation. If you buy a Ford with [SYNC](#), they will give you the traffic service for free for three years and after that the vehicle owner must pay by subscription. Then you have [Lexus](#), which just announced at the [Geneva Auto Show](#) that the new IS250 and IS350 sedan for Europe has the navigation system as standard and the service on top, also standard. That says they see navigation as being as central a component to new vehicles as the radio was for older vehicles. Lexus is taking the high road and saying navigation will be just as ubiquitous as the radio and services just as ubiquitous as having the ability to turn on, set and listen to stations on your radio. In this scenario, the cost is built into the price of the final vehicle. This what the consumer wants. Right now if they have the [OnStar service](#), they get a bill every month and you still get a bill for your iPhone, so you have to deal with two bills.”
- “In the case of applications, there is an increasing case being made to go around getting apps through the phone. Someone like Harman can provide all of the items you need to access infotainment and do it in a safer way or giving you the ability to control the system via voice. They may only engineer that ability, but you will still need software that allows the experience to happen. The auto OEMs also could create a standard that says all apps must do these five things.”
- “From our perspective as a real-time navigation service, we prefer the Lexus approach to the Ford approach and I'm sure Harman does too. In the Ford model, there's the question of whether the consumer will buy the infotainment system option. If it becomes a standard feature, then the system just comes with the car. That's a good thing for us. We like it when the system is not based on subscriptions along. In one scenario you get paid per car. If it becomes ubiquitous in vehicles it's a great advantage to Harmon. Harmon would produce systems for all Toyotas and then just turn the features on and off depending on whether it's a high-end or lower-end car. Harman would do that through its service.”
- “Harman's forecast for the new infotainment system is plausible. Right now, about 10% of the vehicles on the road have connectivity and the ability to enable data to go in and out of the car. Over the period they [Harman] describe, that segment is projected to grow to 50%. They are tracking along with the expected penetration of connectivity in vehicles. If they meet the demand for the OEMs building the systems, they will achieve their goal. But I have no idea what the subscriber price would be.”
- “Many see the car turning into a very big smartphone. If the owner of a connected car wants a new service, they would download it directly to the car, just like we download applications to our iPhones today. Then we would use that software to turn things in the car on or off.”
- “That's why Google is so interested in the automobile...another mobile device on their network. There's a lot of interest in monetizing data that shows where a driver is going. ...would be very interesting for advertisers. People are aware of the data ownership issue. That's why Ford created an application store. They don't want to give up control to Google. They want to control and monetize the data.”
- “The connected car is a huge opportunity for the carriers. They want to monetize the data stream from the vehicle. General Motors and AT&T just [announced a deal](#) that will give General Motors 4G connectivity by 2014 and make the vehicle an AT&T hot spot. The OEMs are really looking for these deals. General Motors can then say to the Denso's and Harman's of the world they have got to build their specs to the AT&T network.”

Harman's forecast for the new infotainment system is plausible. Right now, about 10% of the vehicles on the road have connectivity. ... They are tracking along with the expected penetration of connectivity in vehicles. If they meet the demand for the OEMs building the systems, they will achieve their goal.

*Executive
Intl. Traffic Information Provider*

Harman International Industries

- “Wireless carriers like Verizon have taken a strong interest in what is happening with the Internet of the auto. As the car becomes more connected to the broadband network and the Internet, the auto becomes just like the phone. Once the car becomes another node on the network there are big opportunities to monetize the data, just like we monetize data on the smartphone today.”

➤ VP of a global technology company that enables broadcast content for digital infotainment systems

Harman’s goal of \$500 million in infotainment revenues in five years is achievable. Harman has the technology and established OEM relationships to penetrate the low- to mid-price auto market and/or gain more share on the luxury side, where Harman already has a foothold. This source said it’s still too early to determine whether Harman’s acquisition of Aha would advance its position in infotainment services. The field is crowded with existing subscription service stakeholders like [Pandora](#) Media Inc. (P) and Clear Channel Outdoor Holdings Inc.’s (CCO) [iHeartRadio](#). Aha’s penetration may suffer from Harman’s acquisition if [Panasonic](#) Corp. (PC), [Delphi](#) Automotive Plc. (DLPH) and others refuse to work with the hardware competitor. OEM commitment to quality and safety, along with rigid electronic chip standards for the auto industry, suggests that smartphone-based systems are unlikely.

- “I think Harman’s goal of going to \$500 million with the new infotainment services is realistic. Harman is a strong supplier and I would not take bets against them not hitting 500 million in five years. There is huge demand for consumer access to apps through the smartphone and into the vehicle. Plus, there is the anticipation that the federal government at some point will make the rear back-up display required and standard equipment, like the airbag. So we can expect to see more and more 4.5-inch LCD displays. Previously there were big barriers to getting the systems. Now with more and more displays in cars, the OEMs are anxious to figure out how to take advantage of it. The OEMs have figured out some ways to use it with climate control, navigation and graphic displays. We also are seeing more sophisticated circuitry and chips that drive the platforms with more capability and ability to deliver information. They are still too expensive to integrate uniformly but there are more and more displays, cheaper displays and Harman has very good integration into systems and could benefit.”
- “Harman is already one of the premier suppliers, so the question with regard to market share is: Are they getting new customers via Ford and GM on top of their existing high-end customers or are they seeing more penetration from existing customers? We will see if they are adding new OEM partners. I would not be surprised if they get more slots in vehicles.”
- “Harman does have a robust OEM business as it relates to automotive products. I see them increasingly partnering with Tier 1 [OEM] suppliers, but I can’t tell yet whether the investment in and ownership of Aha is going to pay off. Running the service is great because it gives them the opportunity to build it into and further develop their platform. That way, they can go to the OEM automakers and promote their capabilities. But there already are a lot of players in the space. There is HD Radio, navigation systems, iHeart radio and [iTunes](#) already established with OEMs.”
- “If Aha is not already on the OEM’s list of partners, then Harman could go to their OEMs and say they will throw it in for free. At least that would get their technology into the car. ... But again, there is already so much competition for system services “
- “The Aha acquisition also could work against Harman. For example, at one time there were two navigation systems, [Maptech](#) and Tele Atlas. Then a hardware brand, [TomTom](#) [AMS/TMV2], bought Tele Atlas. When that happened, the other hardware companies who had been using Tele Atlas decided to terminate with them because they did not want to work with a competitor. TomTom ended up losing market share. If Aha was making any progress with Delphi, Panasonic and others and suddenly Aha is Harman, the others may not want to work with Aha because now they are a competitor. Aha’s penetration may suffer because a Tier 1 now owns it. They could end up losing the opportunity to get into other platforms.”
- “Pandora and iHeart have had problems after building their platforms because it is very expensive to run them. Right now there is the assumption consumers will pay for that cost. And they are assuming the cost will never shift back, which may or may not be true. Last year, one of the carriers proposed setting up a toll-free model for service that would be something like the 1-800 model used by businesses. The operating cost for the service provider would change dramatically if that occurred. Right now as it is, they don’t have control of the cost because of the carriers.”
- “BMW and Mercedes bought some bandwidth and bits for GSM [Global System for Mobile Communication] by striking a deal with a carrier. Right now they are using it for diagnostics not entertainment; that would require them to go back to AT&T and purchase more bandwidth.”

- “It’s too early to ascribe any real value to Aha because there are too many unanswered questions and too much competition. To date, Pandora, [Slacker](#) and iTunes are the frontrunners in providing consumers a streaming audio platform. Being able to integrate into hardware may not be a huge competitive advantage because people right now are able to bring information into the car by smartphone. You can do that if you have a Ford with SYNC or a Toyota with [Entune](#) or a Chrysler with [Uconnect](#). All of the OEMs have various degrees of integration at this point. So it’s hard to say whether Harman will win more business because of Aha. Aha may take the position of loss leader and simply use the platform to get in more hardware sales. They may not extract added revenue for the service from OEM customers.”
- “The OEMs take engineering, reliability and design in their vehicles very seriously. It’s an important issue from a software and hardware viewpoint, especially as it relates to driver distraction and safety.”
- “That said, there will always be Tier 1 suppliers and consumer technology in cars will not be replaced with smartphones. The technology will be embedded in the automobile, versus the smartphone. The smartphone may be great for bringing certain apps into the car. The Pandora apps in the dashboard user interface come with the Toyotas, but it was engineered specifically for Toyota vehicles and created through a partnership between Toyota and Pandora. You will always see the system integrated and the OEM as manufacturing partners. ... The OEMs could say, let’s just build slots into the dashboard and let the consumer bring in their phones and apps. But that would leave them with a very lackluster offering. I know they have been shipping to Third World countries without a radio. We are probably more likely to see the OEMs 15 years down the road pulling some smartphone technology into the car. Mercedes already does have an in-dash phone that’s a telematics system with an embedded cell phone. But it’s very expensive and very limited due to bandwidth. At some point they would have to go to AT&T and ask for more terabytes. It’s risky for the OEMs to get into becoming a bandwidth service provider.”
- “Harman’s key competitors are Denso, [Alpine \[Electronics Inc./TYO:6816\]](#), [Vista \[Electronics Inc.\]](#) and Delphi, and I can’t think of any technologies the others have that would give them an advantage. ... Delphi is better known because of its relationship to OnStar and General Motors. If you ask about Harman’s advantage the answer is the same although the Germans have a comfortable working relationship with Harman and Pioneer. Once you have an institution that knows your work the relationship sticks. The switching costs are higher than you’d think.”
- “There will be some recovery in 2013. The [VW Group](#) [ETR:VOW] is on pace and pushing to be No. 1. They are in a slugfest with Toyota and GM and doing really well in China. We won’t see much growth in Europe. So Harman will have to get what they need from China, Brazil or the U.S.”

The Germans have a comfortable working relationship with Harman and Pioneer. Once you have an institution that knows your work the relationship sticks. The switching costs are higher than you’d think.

VP, Global Technology Company

➤ Executive with a global company developing in-vehicle infotainment/navigation and connectivity solutions

Harman has a sustainable competitive advantage over other players and is already an integral force in the in-vehicle infotainment segment. Harman also has a strong position within the luxury car category, where it continues to gain market share. The company will gain additional market share by entering previously untapped markets that cater to low-to-mid-priced cars. The source was less familiar with the subscription service side of infotainment because his company works on internal HMI [human-machine interaction] functionality and connectivity. But he expressed uncertainty about pushing a subscription model in an already-crowded field that has been difficult to penetrate for other subscription services like [Sirius XMradio Inc.](#) (SIRI) and Pandora.

- “Our relationship with Harman started well before they even bought [Becker](#). We work in the infotainment space and with everything that goes into the headboard. We write custom software working as both a technical and an engineering company.”
- “Based on everything I’ve seen and from what I’ve heard, Harman definitely does have a sustainable competitive advantage that will continue to help it stand out from competitors. They are already an integral player in the area of entertainment and infotainment.”
- “I believe Harman will continue to gain market share. They are already well-positioned in the luxury market and it is their intent is to move into the mass entry- and mid-level space I would think, by definition of moving into a new segment, they would have to gain market share.”

- “The technology they have created so far is pretty ... good. They understand the auto industry and they have invested resources in studying, analyzing, designing, and developing a set of different technologies that give them an advantage. Whether you are talking about basic navigation or what happens within the car that makes it safer to drive in the midst of interactive technologies, they have a strong set of offerings that differentiates them from others. A lot of their technology within the automobile is not necessarily identifiable as Harman. A lot the Harman technology to support connectivity is indiscernible. Harman’s approach to technology for the customer and the HMI results in a seamless connection. In many cases, that is different from competitors. Microsoft is working with Ford toward a Windows operating system for the automobile, and I can tell you it is not as agile.”
- “I am surprised that they have acquired such a captive group of suppliers, but they have invested a lot of money in the HMI of tomorrow. They are looking to minimize distractions and to create a safer connected driving experience and studying how to advance HMI through the use of gestures and voice.”
- “Technology is Harman’s competitive advantage. High cost is its disadvantage.”
- “I am not sure about a subscription model for infotainment services. We don’t work on that end of things. But if we look at XM radio, we can see how difficult it is to get people to sign up, especially if they already subscribe to existing services. I think it will be difficult. I don’t see people jumping into new subscription services. And I don’t know how much they can charge for it. Perhaps they can offer different subscription rates for different services, with some basic things like email offered free, and other services like being able to stream [Netflix](#) to the backseat display so passengers there can watch it over 3G or 4G. That might prompt people to sign up for a service.”

2) CAR MANUFACTURERS

Our three sources believe Harman’s strengths lie in the diversity of its systems and hardware, its responsiveness to market demands, and Aha radio. But one source sees no competitive advantage for Harman and another points to a plethora of competitors in the market. Connectivity is becoming a standard feature versus an upgrade, particularly in premium brands, which is a positive for Harman. Many OEMs are developing their own telematics cloud-based systems to avoid the risk of disruption causes by the possibility of switching vendors in the future.

➤ Senior technology manager for a European luxury auto maker

Harman’s strength is its diversity in providing both systems and hardware. Harman at present offers no particular competitive advantage over any competitor in cloud connectivity, be they hardware makers or phone companies. OEMs are also developing cloud-based telematics platforms, or else they risk of having to start from scratch if they switch from one platform to another. Still, connectivity is becoming a standard, versus premium, feature; this will grow the demand.

- “From an industry standpoint, Harman’s been around a fairly long time. What’s good about their business is they’re not only involved in head units and infotainment systems, but also in sound systems and developing consumer products at various levels. They’re pretty diverse compared to the head unit and infotainment [providers] who are purely in hardware.”
- “A lot of manufacturers try to use Harman because they have a pretty diverse business model ... in the sense of the product offerings, what they offer. They’re known for being a premium audio and entertainment company for that point.”
- “Harman doesn’t have any unique competitive advantage over any competitor. Everyone is getting into this space, including Sirius XM, and of course all the phone companies. If Samsung, [Huawei](#) [Technologies Co.] or Apple can put it all in the cloud and connect to the vehicle, then you’ve got a game changer.”
- “The phone companies work with us directly on connectivity, for the most part.”
- “[Re: aftermarket:] Let’s go back five or 10 years. The aftermarket was huge because if you bought a regular car, all you had was the base radio in the car and had to pay considerable money for navigation and so forth. Things have changed now that what were once luxury infotainment systems are now in regular cars, and smartphones

A lot of manufacturers try to use Harman because they have a pretty diverse business model ... in the sense of the product offerings, what they offer.

*Sr. Technology Manager
European Luxury Auto Maker*

are infiltrating the arena. And smartphone makers are saying, why own those systems when you can do it all through the phone?”

- “And Harman is claiming to be unique—you’ll do it through the cloud system. But you still need the hardware to be implemented into the vehicle, and although Harman is going into this, many OEMs are already developing a telematics platform that’s cloud-based. It would be stupid for GM, for example, to say ‘I’m going to Harman’s cloud platform,’ because then they’d be stuck with Harman. So Harman’s providing you with this product, but if in a few years you want to go with Denso, then you have to start from scratch.”
- “We’re building [a platform] independently because we want to be flexible.”
- “The [Sprint Velocity](#) platform, if you want to go from start to finish, is great for OEMs who want one relationship. But if they want to be price competitive, then it doesn’t help.”

➤ Director, connectivity, for a European automobile manufacturer

Harman is a key player in the rapidly-evolving connected car/infotainment market. This company has partnered chiefly with [Ericsson](#) [ERIC] for cloud connectivity, and [Mitsubishi Electric Corp.](#) [TYO:6503] for in-dash hardware, although Harman was a near miss. Harman’s strength is its responsiveness to market demands—for example, its ability to quickly deliver new infrastructures at scale. But there is significant competition in the market, from [Parrot SA](#) [PARRO:EN] in particular for aftermarket hardware. Europe at present has a glut of auto inventory, but its mass market and premium brands will all be connected in the coming years. Harman’s prospects in Europe are bright.

- “Ericsson is our main cloud provider, though in connected cars you have a lot of different partnerships [including] a number of content providers which we liaise with, including [Spotify](#), and a number of navigation services through [NavTeq](#) and Nokia.”
- “We’ve had talks with Harman, more on our audio side.”
- “Our main provider for our factory installed is Mitsubishi Melco. We chose them after a thorough analysis, and Harman was one of the [competitors]. Melco seemed a good partner, were right in price and had a good systems infrastructure.”
- “Harman’s strength is, I think, the same as Melco, a strength in the infrastructure. I would say the benefit of these companies is they have to be very quick and adaptable, with platforms that are quick to develop. So you know it’s important to us to liaise with companies that have the capability to deliver new infrastructures and respond to tech shifts, building infotainment systems that are adaptable and scalable. Those are the areas where we value these types of suppliers.”
- “In Europe we have of course overcapacity—more cars than there are customers. But connected cars will be one of the key areas of competitive advantage moving forward, especially in Europe where we have a number of mass-market OEMs.”
- “I was at CES last year and you see the incredible speed to market of the aftermarket companies. They are extremely quick and competent. They work with parameters like, maybe they’re easier to mount than embedded systems which have to be integrated with electrical systems, with easy-to-fit slide-in-place solutions which gives them a good spot in the market. Especially within connectivity, that is one of the core strengths of being an aftermarket supplier.”
- “[Harman’s plans for a \$500 million market share:] There are a lot of numbers out there, from [Gartner](#) and such. But the main conclusion is, this is a huge megatrend in automotive and the OEMs have to embrace this and really get the most out of it. It will be a game changer for the whole industry.”
- “There is a generation called the ‘digital natives,’ the 12-, 13-, 14-year-old who don’t understand why cars aren’t connected? The coming generations are going to put quite tough demands on car makers.”

➤ Senior manager of connected vehicles (which use Harman’s infotainment platform)

This European automaker has a long-standing partnership with Harman and sees Harman’s pedigree as a strength in its ability to retain market share. The automaker views Harman more as a systems integrator, but maintains its own relationships for individual technology (e.g. with chip providers, software, voice control) and with smartphone providers for that integration. Harman’s strength is its pedigree, and Harman audio systems are the *de facto* choice of audio system for this brand’s commodity models, while [Bang & Olufsen](#) is in its more premium models.

- “We’ve ... had Harman as a provider for quite some time, and I would say our systems are probably some of the most advanced. We’ve worked with them step by step, and if you just look at that experience, it brings a lot of value.”

- “The way we’ve entered and evolved in the space is working with Harman, but a lot of the work around how connected cars work in [our brand] is directly with the tech providers like Google and [Nvidia](#) [Corp./NVDA], and we’ve had a direct relationship with [T-Mobile](#).”
- “It’s difficult to say who the competitors are. Harman is our primary system integrator, but in terms of the actual technology, it’s not them, it’s us working directly with the providers. So Harman assembles system. But in terms of which chip and which version of Nvidia technology and software and voice control, that’s all us working directly with suppliers.”
- [Harman’s competitive strengths:] “If you’re looking at the audio space, Harman has the Aha radio component that they’re emphasizing, which helps create an interface platform that can integrate different radio services in the car. So that’s one area they’re differentiating themselves. We have [Bose](#) technology in our cars, and we’re very happy with those, and also have Bang & Olufsen in the premier segments.”
- “But with all of the automotive experience Harman brings to the space, it’s certainly going to be a strong player.”
- “We’re becoming more dependent on the software interface than the hardware. We can certainly hardwire the components, but if I can leave the phone in my pocket and let it communicate over Bluetooth or WiFi, and/or store it in a box in the car such that I don’t have to handle it, and can control it through my vehicle interface—a lot of that discussion happens directly with operating systems providers, or smartphone tech providers.”
- [Smartphone interfaces:] “Traditionally we’ve had interfaces directly with the device providers that are popular. With Apple, for example, we include a multimedia interface cable that comes with all models where you plug in devices, and can access content with the interface in the vehicle.”
- [Ownership of data:] “It really depends on what kind of data. If it comes down to a policy decision, if it’s the customer car, is it the customer’s data? It’s not new for an automaker to extract information from the vehicle in order to diagnose it, for example with trouble codes. So that information is already being extracted, whether you do it with a tool or wirelessly.”
- “There are some areas where the data becomes anonymized. If you can extract information from moving vehicles about speed, direction of travel and so forth, when it’s aggregated over a lot of vehicles, it can create accurate weather maps, for example. The question is, what’s the model for sharing that information?”
- “Now if automaker is sharing customer information for targeted advertising, this is where it gets murky. Did the customer ask for it? Is there enough benefit for the customer that it’s acceptable? ...still waiting for some answers.”
- “We control the interface with the vehicle all the way from the back end. You can’t have a third-party app or service in the cloud that directly reaches the vehicle unless it goes through a system we own. We’re trying to develop the same concept for devices as well, that has to go through our own app framework.”

We’ve ... had Harman as a provider for quite some time, and I would say our systems are probably some of the most advanced. We’ve worked with them step by step, and if you just look at that experience, it brings a lot of value. ... With all of the automotive experience Harman brings to the space, it’s certainly going to be a strong player

*Sr. Manager of Connected Vehicles
(Uses Harman’s infotainment platform)*

3) AFTERMARKET SHOPS

Two of four sources report Harman’s main competitive advantage is its name-brand recognition and marketing. One source believes Harman has no competitive advantages among a sea of competitors, and the fourth had no comment on the topic. There are a plethora of competitors, some with better quality products. One source reports Harman is priced high for its quality and another source says Harman produces an average product. One source reports Harman is a poor partner for aftermarket shops because of the low margins aftermarket shops receive.

➤ Sales representative with an aftermarket car stereo business in Florida

This source with 16 years of experience in the auto audio aftermarket says Harman’s greatest strength is name recognition. In terms of quality and price, however, he says Harman lags behind virtually all competitors with its products. Aggressive R&D spending and penetration of the OEM market so Harman products are installed at the point of

Harman International Industries

automobile manufacture will be key parts of any successful growth strategy with Infotainment. Audio electronics and technology almost always fall in price, but that requires consumer adoption and time.

- “Does Harman have the competitive chops to get ahead in this market? Yes and no. They’ll need to get involved more on the OEM side, work with the car manufacturers. Many audio brands already do this. If you buy an Infiniti, it typically comes with Bose. The Bose name has been around a long time, same as Harman, but their technology has not kept pace. It’s strictly marketing that keeps them up there. Based on the long marketing history of Harman, it’s the name recognition that closes the deal. Time and time again, people who have had those types of systems who then upgrade will wholeheartedly agree that there are better units out there.”
- “These Bose and Harman systems are mass-produced products for people who are not in tune to the stereo world and high quality. Harman needs to do more research. I don’t think they’re in a position yet to gain a bigger share of the OEM market.”
- “Harman’s main competitive advantage is name recognition. They pour money into marketing. Always have.”
- “Harman will be able to compete; it’s just a matter of comparison. If you don’t compare to other systems, the marketing that Harman has will get customers to fall into that spider web and that’s where Harman will gain a majority of their business.”
- “Strictly my speculation—Harman’s got a lot harder number base than companies like maybe [JVC] [Kenwood](#) Corp. [TYO:6632] as far as a broad spectrum of dealerships. Could the number that Harman carries help their projections grow from \$100 million into \$500 million in five years? Yes, it’s possible, but Kenwood is right there with them with all of these technological capabilities for ‘infotainment’ services. A lot of companies are going to be offering this.”
- “JVC, Sony and Kenwood make the best systems on the market right now. These offer actual networking with your audio library and even friends’ libraries. Everybody is offering auxiliary, USB and Bluetooth. The next big thing will be WiFi networks in your car. JVC and Sony and Kenwood, to a lesser extent, are the leaders in these systems.
- “Harman and Bose can’t touch the abilities of JVC’s head units in terms of features for the money.”
- “You’re going to pay a couple of grand for a premium OEM system, but many aftermarket systems are very closely priced and will knock it out of the water in terms of sound quality and networking features.”
- “People are very hungry for this stuff. These head units—the WiFi, cloud syncing, web access—that’s what consumers want. Right now it’s expensive, but that won’t last. ... The price will come down.”
- “Harman needs to spend money on R&D to get their quality to the level of their competitors.”
- “Harman’s dependence on the European auto market depends on the economy and price points.”

The Bose name has been around a long time, same as Harman, but their technology has not kept pace. It’s strictly marketing that keeps them up there. Based on the long marketing history of Harman, it’s the name recognition that closes the deal.

*Sales Representative
Aftermarket Car Stereo Business
Florida*

➤ Store manager of a high-end aftermarket car audio business with 26 years of experience

Harman’s principal competitive advantages are brand name and technological advances. He believes Harman will hit the \$500 million annual sales target for infotainment within five years. Consumers respond overwhelmingly to what he called “the cool factor,” and Infotainment has it. Harman’s forays into OEM will likewise be successful, he predicts, because consumers increasingly want the best car audio system they can get at the point of sale. It is only because car manufacturers install systems inferior to aftermarket products that his business continues to thrive. However, smartphone companies may eventually win the greatest market share with OEM car systems simply because virtually everyone can afford a smartphone.

- “The Harman name is definitely a big competitive advantage. Mention Harman or [Infinity](#) and people know who you’re talking about.”
- “Harman is absolutely becoming a bigger player in OEM. They’re doing that with car alarms, so why not with GPS and smartphones? There is definitely a niche for it and they are pushing hard to get into the OEM space. I think they will succeed if they keep the price points in place. It might not help me, but we still see plenty of customers who are not satisfied with the factory unit in their car.”

The Harman name is definitely a big competitive advantage. Mention Harman or Infinity and people know who you’re talking about.

*Store Manager, High-end Aftermarket
Car Audio Business*

- “I think you’ll see smartphone companies going directly to car manufacturers for OEM systems, and most likely the phone companies will win over the car electronics companies. Twenty years ago it would have been just the opposite, but now everybody has a smartphone.”
- “Harman can still gain share in this market and I’ll give you one example in two words: Dodge trucks. There are many vehicles that come with Infinity speakers, which are made by Harman. All Dodge vehicles come with Infinity speakers. You would not believe how many people come into our shop and say they want a head unit or other component for their Dodge and it has to be Infinity or Harman. It’s name recognition. They want to match what they’ve got with a new head unit and they are willing to pay for it.”
- “Yes, Harman can absolutely hit their sales targets. It’s the new technology. It’s cool. I hate to say it, but people don’t buy practical anymore; they buy cool. And infotainment is cool.”
- “European auto recovery will take awhile with the high-end vehicles. I’d say at least three to four years before Harman would see any benefit.”

➤ Owner, custom installation shop

This 20-year-old installation shop sees Harman as a poor partner; the margin of profit on Harman is low to begin with, and Harman has not typically stuck to the prices it quotes to dealers like this one. Harman at present offers no competitive strengths in audio or infotainment that distinguish it in a crowded market, which includes JBL, Infinity, JVC, Sony, Pioneer and Kenwood, and numerous new offshore providers.

- “I’d say [Harman has] no market strengths. They produce an average product.”
- “Every other vendor gives me a better margin. Whatever price Harman announces, it never sticks. I end up seeing it 20 other places on the Internet for less. It’s clear to me when they dump out the product for \$5 less.”
- “So they’re not necessarily the best partner, and they make good product but not special product.”
- [On the aftermarket] “I’ve been doing this a long time, 20 years, and the demand I’m seeing now is for [JBL](#) and Infinity. It’s a packed market, and we’ve got way too many products.”
- “For in-dash audio and infotainment, right now there’s Sony, Pioneer [Corp./TYO:6773], JVC and Kenwood are all strong, and there’s a large slew of second-tier suppliers with a fairly decent price. And there are 20 companies offering the same product from China.”
- “They’re not doing anything no one else does. And there’s no incredibly new technology coming from Harman, why would anyone switch to it?”

➤ Product manager at a chain of car audio/infotainment resellers, installers in California

Harman is entering a very crowded market for aftermarket audio and car connectivity. Pioneer has been at the forefront in latching onto trends like app radio and iPad like touchscreen, and Parrot is very strong already in the aftermarket for touchscreen infotainment. The demand now is for methods of connecting smartphones to the infotainment systems, which is more likely to come from third parties than the smartphone providers, and Parrot is at the forefront; Harman is likely to take charge as well. There will be less of a demand for swapping out the in-dash infotainment system than for superior ways to connect to it. This reseller has yet to carry any Harman product, although it expects to do so. Thus far, the company has been well served by its relationships with, among others, Pioneer, JVC, Alpine and Kenwood, and newcomers including Parrot and [Vizualogic](#).

- “More recently was app connectivity by tethering the phone or using a WiFi spot in the car to download Pandora or Aha radio. This year, it’s the addition of Siri voice control through the headings in the car as well as more Internet connection”
- “It’s a pretty loaded market with a lot of choices.”
- “So the idea of connecting to the Internet and downloading music and video entertainment—really, all the manufacturers are approaching that at the same time.”
- “Pioneer was the first company to launch an app radio, and probably launched that into the market. They have a radio with a multicapacity touchscreen that operates the same way an iPad does. But now we have Parrot, the world’s largest manufacturer of Bluetooth, which just introduced [a similar product]. It’s the newest entry into this connectivity and bringing the internet into the car.”
- [On smartphone-based systems:] “The smartphone in your hand is one thing—you have a vehicle that you’re driving and are in need of something to bridge that gap, whether it’s HK or other companies—you need an interface to make it happen.”
- “The Parrot product is an add-on product that connects the Internet to your car; if the Harman product does the same thing, that’s a good product to come out with.”

Harman International Industries

- “This category of products, to use a smartphone in your car to provide data whether it be music or video or Facebook, is like the swell of the wave that that’s just starting. This is the new shift, and getting into the dashboard is the key, while the dashboard is not changing.”
- “The radios today are pretty good—they sound great, and there’s no real reason to take them out. But to add features you need to have a way to do that, through harnesses, WiFi—the companies that develop those connection devices will have a bright future.”
- “But at the same time, the car manufacturers are doing the same thing. The window of opportunity may be five years or ten years before you’re finding that all cars have connectivity built in.”
- [On smartphone companies squeezing margins:] “I think the connection between the consumer in the car and the phone will always be done by third-party companies. It’s not really their forté, building that type of product.”
- [On smartphone systems going directly to OEMs, working with companies like Harman, or through third parties:] “They’ll do all three.”

4) INDUSTRY SPECIALISTS

Harman’s strengths are in its scalable platforms, which will facilitate growth in entry-level products. One source notes that Harman’s quality does not set it apart and the company has gone through an innovation dry spell, while the second source says Harman has no special competitive advantages. Both sources say Harman faces stiff competition from a number of competitors. Our second source notes Harman needs to promote its brand name more as it has many factory-installed products which the consumer does not recognize as the Harman brand.

➤ Founder of a global audio and acoustics consultancy with clients that include Fortune 500 companies

Harman is already a key player in the audio and auto infotainment market. Harman’s strength centers on scalable platforms that allow the company to develop entry-level products. The source said Harman production is committed through 2018 and it has initiatives designed to leverage growth in BRIC markets, efforts that promise sustainability regardless of newer auto/infotainment outcomes. Harman’s weakness stems from an innovation dry spell and executive decisions that have cut core staff and undermined R&D. The source believes Harman needs to regroup and rethink its approach to marketing, placing more emphasis on pitching its brand and products to the car buyer.

- “Harman is already very entrenched in the auto industry. I would say they are No. 1 in terms of volumes sales and quantity of product. I can’t see anyone else that comes close to creating the quality and quantity of product. Bose is well respected and their audio and infotainment sales are good. But when you look at Harman’s numbers, their sales are two to three times that of Bose.”
- “It is hard to read whether Harman can be a more integral part of the audio and infotainment market. The division between their two segments is fuzzy. They have taken their lifestyle products and blended them with their consumer electronic products. Consumer electronics are not typically in the car but in the home or on mobile devices. Harman doesn’t do too much in mobile. Their focus has been high-fidelity home theater in a box. They do some aftermarket for audio but mostly they are the big boom boxes. If you own a ‘Beemer’ or a Lexus you have enough money that you don’t need to do it yourself through the aftermarket. You would have a system professionally installed. That said, with blending or blurring of their consumer and lifestyle divisions, it’s hard to read where the upgrades are for car audio.”
- “There are a lot of players in one form or another in the navigation space. [Bosch](#) [Ltd./BOM:500530] is a big player in infotainment at the department store level. Continental and Siemens are big along with Mobis from Korea. Harman has managed to stay ahead of them by taking the premium path. Harman is sold out to 2016 to 2018 to the tune of \$14 billion. They probably even have stuff on the books to 2020. If that doesn’t make them a sustainable company, I do not know what would.”

Primarily with the hiring of CEO Dinesh Paliwal there was tremendous turnover within the core engineering staff. Engineers have to be developed and you want to maintain your staff because it takes engineers years to design and develop core content. Harman now has less capability in electrical engineering than they’ve had in the last 10 years.

Founder
Global Audio & Acoustics Consultancy

Harman International Industries

- “In terms of strengths, Harman has produced some very good scalable platforms. That scalability allows them to develop some entry-level items. They were quite brilliant in developing the scalability concept whereby you go to the dealers and get an upgrade. They have excellent sustainability in that area. They have concepts and plans in play to sell to the BRICs [Brazil, Russia, India and China] markets.”
- “But Harman also has failings. The development and design of loud speakers typically involves mechanical engineers and electrical engineers, people who understand how circuits work. Primarily with the hiring of CEO [Dinesh Paliwal](#) there was tremendous turnover within the core engineering staff. Engineers have to be developed and you want to maintain your staff because it takes engineers years to design and develop core content. They also closed a plant in Indiana. Harman now has less capability in electrical engineering than they’ve had in the last 10 years. I blame upper executives and management because they don’t understand how to make the hardware or the importance of hardware.”
- “Another concern is that we don’t know who’s out there. Before Google, no one even saw that a Google could exist. Now Google is a threat to the iPhone. We simply don’t know the nature of what’s out there to pose a threat to Harman or to morph into the next big thing.”
- “Harman is developing hardware for the Ferrari and Maserati in the area of multichannel surround sound. But there is nothing new or innovative in that hardware. They have not had any breakthroughs or new developments since 1996. By closing plants and allowing repeated turnovers, they have really weakened the company and that is a concern for sustainability.”
- “The critical mass Harman has is strong. But I know the people at BMW and Mercedes who make the decisions and they would tell you Bose could make just as good a system as Harman. Bang & Olufsen from Denmark is very good. They didn’t even go for Audi until 2004 and now they are a major competitive threat to Harman.”
- “The program they initiated for infotainment services and the plan to go to the dealers and put the software in was very good. But the way in which Harman markets their systems to the OEM buyers is very strange. Between 1990 and 2006, their mentality was seeing the engineers at the automotive companies as the primary customer. That always troubled me because if you follow the trail of the engineer the decision maker is his boss and the sales group at the dealership. They need to ask, who is our customer? I’ve always wondered why they don’t promote the brand and the product to the guy who buys the car. When General Mills airs a TV commercial to market a new cereal they market to the customer and the customer is the kid. The kids then go to upper management or the decision maker, the parents.”
- “I don’t know whether Harman’s goal of going to \$500 million in sales is realistic. ... But there is definitely a market opportunity in the infotainment service segment.”
- “Whoever collects the data owns the data, so if Harman is collecting it I would say they own it. Companies can monitor how consumers behave and monetize. But Harman has not had, nor are they known for, that mindset. Perhaps with the acquisition of Aha that will change. I suppose a company like Harman could glean extraordinary data from consumers if they ask the right questions. I have not seen evidence to suggest they can do that, but then I’m not sure they can’t do that.”
- “In general, there was some softness in professional audio in the fourth quarter so I could see where Harman would have capital spending delays in their professional division. I think China is a red herring. China does account for a big segment of their sales, but we are talking about a company that pulls \$150 million to \$200 million a quarter and China is roughly \$20 million to \$50 million [per quarter] of that.”

The critical mass Harman has is strong. But I know the people at BMW and Mercedes who make the decisions and they would tell you Bose could make just as good a system as Harman. Bang & Olufsen from Denmark is very good.

Founder
Global Audio & Acoustics Consultancy

➤ Auto editor/writer at an Internet news site with sister publications covering cars, mobile, digital TV

Harman is already an integral player in the auto industry, but its brand identity is obscured because most of its products are factory installs without giving credit to Harman. Harman has a strong audio/stereo/loudspeaker offering but possesses no special advantages. As connectivity becomes a desirable feature, Harman will need to promote its brand name and push for more visibility if it hopes to maintain position or gain market share. On the high-end of audio/stereo equipment, Harman faces stiff competition from better-known audio manufacturers such as [Burmester Audio Systeme](#), [Bowers & Wilkins](#) and Bose. Harman’s proposed infotainment services could generate significant revenue and its projected goals are achievable, even if Harman charges a modest monthly fee of \$10. Success will turn on the quality of

the service. Data generated by a Harman system would likely belong to Harman; the new pool of data potentially generated by auto connectivity is worth billions and remains an untapped revenue stream for service owners and advertisers.

- “The short answer on Harman’s sustainability and position in the segment is that they have lots of good technology and lots of OEM auto solutions. The problem with OEM solutions in general is that most become yesterday’s technology even before the new car models are released. People are searching for solutions to the time delay. Consider the latest feature out for [Toyota Touch & Go](#). The GPS is built in, but its newest, major selling point is the ability to plug in a USB key that allows you to upgrade through a connected device outside of the vehicle. In the past, you would have to go to a mechanic if you wanted a new version. The ability to download new software is a good solution but a temporary fix to the time delay problems. People have been doing USB downloads for years with in-home entertainment. It’s just now come to the car.”
- “Harman’s competitors don’t have any better ability to differentiate their selling points. It’s not the fault of the audio and loudspeaker folks. It’s just the way the automotive industry is and specifically it’s the way the car manufacturers have always operated. I think the car manufacturers realize they have a problem. They are being pushed by Harman and other audio and infotainment providers to move more quickly. But the business of designing a vehicle and getting it to the showroom moves at a different pace than consumer electronics and new technology for devices and gadgets.”
- “Part of Harman’s problem is that they have been hiding behind the car manufacturers. Toyota vehicles don’t make the brand visible, but Harman is most of what you see in Toyota factory installs. The same people who are buying iPads and iPhones are buying cars from Toyota, among others, but they are not as familiar with the Harman name. They may not know it unless they have been into very high-end stuff.”
- “For [Harman] to shift and reorient their pitch from the auto OEM to the consumer gadget buyer, they would need a new flagship product.”
- “Harman is already well integrated into the automotive stereo and sound system. You just don’t see their name or associate their name with car stereos or automotive sound systems. Harman is working with Ferrari to provide a solution, and I believe their brand will be apparent in conjunction with Ferrari. But we do not see them establishing a presence at the lower end, where most consumers live.”
- “Because the brand is hidden, the consumer has no relationship to Harman in the auto segment. So there is no demand for the brand. The car manufacturer may feel they can get better deals with someone else. At the same time, Harman has an advantage with certain manufactures because they are already working with the and already have a relationship. That might be the case with Toyota.”
- “There are numerous high-end audio speaker companies that may come to mind more quickly when consumers think of the high end. You can get a Bowers & Wilkins via Bose. Harman speakers end up looking like a poor relation. The ability of car manufacturers to offer Harman may be that they don’t see them as a profitable solution. The OEM would get about 2,000 [British] pounds extra with a Bowers & Wilkins speaker. Burmester works with Porsche and they charge an extra 4,000 pounds for their speakers. The car manufacturers dealing in the luxury market may feel they have a better chance of getting the consumer to upgrade to the top line, and with better margins. Harman right now is behind the scenes, but they have the technology to become a more integral branded player, although I’m not aware of technology that gives them an advantage.”
- “Nvidia has moved into the auto space and is now working with a few automakers. Delphi, a French company, is working with a lot of the car manufacturers that partner with Nvidia. And a lot of the car manufacturers have their own internal teams working on solutions. Pioneer and Clarion are really aftermarket solutions. A lot of the aftermarket solutions on the high end are for the geeky consumers and aimed at those who want to build their own sophisticated audio system.”
- “Harman has been backward for a long time because of their hidden presence. People driving older cars who want to upgrade have lots of name choices ranging from Kenwood to Pioneer. So with all of the new developments evolving for the connected car, Harman has some work to do if they want to maintain an edge in the automotive market. But I also believe their future is as bright as they choose to make it.”

Part of Harman’s problem is that they have been hiding behind the car manufacturers. Toyota vehicles don’t make the brand visible, but Harman is most of what you see in Toyota factory installs. ... Because the brand is hidden, the consumer has no relationship to Harman in the auto segment.

Auto Editor/Writer, Internet News Site

- “Harman can work with the smartphone players if they want to, but they need to forge relationships with Android and Apple. It’s hard to say whether the smartphone system makers would go directly to OEMs or to Harman. Right now the smartphone is not yet embedded in the car. BMW and Mercedes have systems capable of plugging in an iPhone. I also know BMW is working with Harman, but I don’t know if they will be provided with visibility. They definitely will do the surround sound, but it might only be a processor inside of a unit.”
- “It is plausible that Harman can gain market share, but only if they market the brand as a Hi-Fi stereo speaker system for vehicles. They need to market themselves in the same way that Apple became a success. They made themselves desirable. Harman has a bunch of different name brand companies under its banner but the general public only knows that Harman has a relationship to JBL or [Mark Levinson](#). But they have something like 15 different brands, the latest being Aha. I have noticed they are now identifying their brands as Harman, but that is a recent development. Now the logos say JBL by Harman or Becker by Harman. The consumer may know JBL or Becker, but they have not identified the brand as Harman. It’s almost as if they are competitors. Maybe if Harman can market itself correctly it can compete with Burmester, which audiophiles hold in great esteem.”
- “The new business approach ... looks at a subscription model. You buy their product and buy into a service. The model described can absolutely increase their revenue by incredible amounts. ... It remains to be seen however how good the technology is and whether it sells. And it may be they can’t get away with charging unless they allow the consumer to take the experience with them outside of the car, on the move and into the home. The alternative would be to connect with the iPhone and offer downloadable apps. Because people are already invested in any number of services that already cost money. My point is, if I already have a Spotify account and Harman said, ‘come with us,’ I would say, ‘you’re too late to the party.’”
- “I would assume that if Harman provides the integrated, connected service, they would own the information it generates. ... The other issue is the third-party integrator. If you pass through Facebook, then Facebook owns the information. It’s a bit of a minefield out there right now with regard to data ownership. There are things that have to be worked out. I met with Nvidia recently and they mentioned doing a big deal with a third party. They also mentioned that if you work with, and now I’m using an example, someone like Bing, they do not want the consumer to know they are using their data. Cars are also very easy to hack.”
- “How big an opportunity is there in monetizing this data It’s worth billions. Right now the car is an untapped frontier for selling newly generated data.”

5) COMPETITOR

This competitor sees Harman gaining market share in infotainment, but growth will be slow and may be at the expense of quality to reach the mid- and entry-level market. Competitors offer comparable quality at equal or less expensive price points.

➤ Sales specialist for a major competitor

This source sees Harman gaining market share with the infotainment service, although growth may be slow. Harman will need to focus on selling the service to its installed base of 15 million vehicles in order to reach its own \$500 million target in five years, as he is not sure if Harman can hit the goal through head-unit sales in new vehicles or with aftermarket installations. Asked to elaborate, he said competitors’ systems offer quality at a price point equal to or surpassing Harman equipment. Harman may have to sacrifice sound quality and features to produce mid- and entry-level units that would enable them to grow market share.

- “Harman’s infotainment is definitely cool stuff, not something we deal with here in cars. That could definitely set them apart from competitors.”
- “Harman can probably hit \$500 million with infotainment in the next five years if they push for the existing vehicle base. If they have their equipment in 15 million vehicles, they should reach their price target if the service is as good as they claim. Customer word of mouth is still a big part of sales in the electronics business and that could really help them—or really hurt. It depends on how people react to Infotainment as a service.”

If Harman can introduce entry-level equipment that offers what people want at an acceptable price point, they can pick up market share. I don’t know how you do that and maintain component quality to the level Harman is known for.

Sales Specialist, Major Competitor

- “Our competitive edge is sound quality. At the end of the day, that’s all that really matters in car audio. Also the simplicity and elegance of our gear is what sets us apart. Most people don’t use every feature on their system, so it’s a waste of their money. Our equipment is a lot easier to use and the audio quality is unmatched.”
- “Some of Harman’s online services and Bluetooth capabilities give them an advantage.”
- “For car audio, actually for pretty much all electronics, price has always been a huge part of what people look at. People are looking for systems with a specific budget in mind. I think people are thinking more expensive means more bells and whistles, but that’s a misconception. More expensive really means a system that will do all of the things you need it to do. Budget will be the most important thing to a lot of customers. If Harman can introduce entry-level equipment that offers what people want at an acceptable price point, they can pick up market share. I don’t know how you do that and maintain component quality to the level Harman is known for.”
- “On the subscription price of infotainment, so it’s hard to gauge what any penetration rate might be. It’s unquestionably a huge opportunity and over time I would expect all the major audio companies to offer infotainment-type services or partner with a company that does.”
- “There will always be first adopters and techies who buy everything new and get the next generation of every product, but most of the people we deal with want a system to last. We don’t build in subscription services and other features with our equipment. People can get what they need and only what they need. Most of these services you can add on as needed. So in five to six years when all the technology is obsolete, you just replace the one component.”

6) CUSTOMER

This car-audio aficionado would buy Harman’s infotainment system based on its advertised features. She has had Harman speakers in past vehicles and been pleased with them. She notes [Beats by Dr. Dre](#) and [Monster](#) are the trendiest systems right now, while Bose and Alpine ruled the 1990s.

➤ Car audio consumer/high-end car stereo enthusiast

This source is a longtime car-audio aficionado who says she has driven everything from a Mustang GT, Chrysler 300 and Porsche 911, to her current Mercedes. Although she was not familiar with all the details of Harman’s infotainment system, the source said she would be eager to buy it if all the features work as advertised. A chronic consumer of luxury cars, this source believes consumers would forgo other features in a new car, such as leather seating, in exchange for a high-tech system like Harman’s infotainment service.

- “I would buy [a Harman infotainment system] in a second if all those features work the way they advertise. I hate my current navigation system because it is so hard to use.”
- “I don’t buy for the name brand. I buy for the features and whether they work for me.”
- “The last car I had was equipped with Harman speakers and they were so good I never had to change them. My Mercedes, I put all new JBL speakers [manufactured by Harman] in there. They are so crystal clear, it’s like you’re at a concert.”
- “When you’re talking about OEM stuff and whether a company like Harman can succeed, there are always tradeoffs you can make as the car buyer. So if I had a choice of a great sound system with infotainment versus leather seats or cloth seats, I’d go with cloth seats and get the best sound system. If Harman can make the same quality that’s affordable, then yes, they can grow their market share. The quality of the sound is ultimately what I would want. But I would probably get the car with all the features I want, then save my money and go for the Harman system in the aftermarket.”
- “The Dr. Dre systems are probably the coolest on the market right now.”
- “Alpine and Bose used to be ... just the best. They were huge. The quality in the eighties and nineties was so wonderful, but nowadays it’s Dr. Dre and Monster that are all the rage.”

The last car I had was equipped with Harman speakers and they were so good I never had to change them. My Mercedes, I put all new JBL speakers [manufactured by Harman] in there. They are so crystal clear, it’s like you’re at a concert.

*Car Audio Consumer &
High-end Car Stereo Enthusiast*

Secondary Sources

Our first two sources discuss the expanding connected car market, which is set to reach 17.6 million consumers by 2017, and China's positioning to be the largest market for telematics services. Our third source discusses increased competition from mobile network operators, with GM's announcement that its OnStar system will use AT&T mobile network in 2014. Our fourth source discusses Harman's international expansion plans, and our final source discusses Harman's launch of its UConnect infotainment system which features faster response times, increased voice recognition capabilities, and more realistic navigation.

➤ **March 28 Telecom TV [article](#)**

The connected car market is set to reach 17.6 million consumers by 2017 and will be in almost half of all new vehicles. Mobile network operators are entering this expanding market with hopes of grabbing a piece of the growth and diversifying their offerings.

- "According to [Parks Associates] new report 'M2M: The Next Billion Mobile Connections' by 2017, 17.6 million consumers will subscribe to embedded connected vehicle services such as General Motors' OnStar and Chrysler's Uconnect Access."
- "The research firm says nearly half (47%) of all new vehicles sold in the U.S. will have embedded cellular modules by 2017."
- "Mobile network operators (MNOs) such as Verizon, AT&T, and T-Mobile see M2M as a way to diversify their revenues and secure a strong foothold in this early market, particularly in the auto industry," says Kent."
- "The connected car will enable MNOs can leverage their relationships with module manufacturers, app developers, and consumers to provide auto OEMs with valuable integration services, thereby generating service revenues on top of network access fees."

➤ **April 1 Technology Tell [article](#)**

China is positioned to be one of the biggest markets for in-vehicle navigation and telematic services due to its already large and growing smartphone market.

- "As vehicle sales keep rising, China is set to be one of the biggest markets for automotive telematics services as well as personal navigation devices (PND) and original equipment manufacturer navigation systems. All vehicle manufacturers are following the embedded approach to offer complete packages to clients who demand connectivity and telematics services in vehicles."
- "New analysis from [Frost & Sullivan](#), Key Trends and Forecasts for the Chinese Automotive Navigation and Telematics Services Market, finds that an era of low-cost navigation will emerge with the partnership of OEMs and PND manufacturers. Mobile phone-based telematics is to dominate due to high Smartphone penetration."
- "In terms of overall navigation systems (embedded, aftermarket and PND), demand is set to increase from 10.4 million units in 2012 to 21.0 million units by 2018."
- "However, the aftermarket embedded in-dash market share is projected to decline due to the rising penetration of smartphone navigation and OEM navigation."
- "The number of smartphone subscribers with navigation applications is estimated to expand from 93.2 million in 2012 to 400 million by 2018, making China one of the largest smartphone navigation markets in the world. Higher smartphone penetration and interfacing solutions, such as MirrorLink, coupled with competitive pricing strategies will also motivate the need for smartphone navigation in cars."

➤ **March 27 GPS World [article](#)**

Competition in the connected car market heats up as Ford announced a deal with Spotify to make Spotify Premium available through its Sync AppLink, and GM announced that its OnStar system will use AT&T mobile network in 2014.

- "Ford and GM both made important announcements, sending a signal that wireless information and connectivity is here to stay in a vehicle—and location will be a big part of the growth."
- "Ford announced a slew of deals, one partnering with Spotify to make Spotify Premium available through its Sync AppLink."
- "GM's big announcement is that its OnStar safety, security and navigation service will use AT&T Mobility's network for LTE modules in 2014."

Harman International Industries

- “Industry observers believe that GM’s announcement indicates the new AT&T deal could give the connected vehicle market a big boost as the units will go into most cars, including entry-level vehicles. Wireless carriers have indicated that transportation remains one of the key vertical markets they are aggressively getting in to.”
- “AT&T pulled a big coup as GM uses Verizon Wireless for its OnStar service.”
- “Not to be outdone by GM, Ford also said its 2104 Ford Ecosport will feature AppLink capabilities. The company also said it would be offering, in Europe, applications from Kaliki, Glympse and Aha. Ford says it now has 2,500 folks registered in its developer program—doubling the numbers from last month.”

➤ Feb. 27 Business Standard [article](#)

Harman expands internationally with an emphasis in India. It is also trying to capture audiences in China and Russia by building experience centers.

- “Harman, a \$4.4 billion global provider of audio and infotainment solutions company, is focusing on India market to achieve sales of \$500 million in the next five years. The company currently has a \$250-million order book in this segment.”
- “Commenting on India operations, Dinesh C. Paliwal, chairman, president and chief executive officer Harman International Industries Inc. said, ‘Harman India has made significant investments in the India market. The company has large development centers in Pune and Bangalore, the fastest growing within the Harman family.’”
- “‘The India Development Centers primarily consist of engineering, product development, competency centres for the three Harman divisions lifestyle, automotive audio and infotainment, and professional audio. These centers were the largest contributor among emerging markets for patent and disclosures filing in 2012. In addition, Pune will host their upcoming manufacturing facility and a state of the art acoustics lab. The company expects a 100% growth for the next five years in India.’”
- “Harman is setting up a manufacturing facility in Chakan near Pune. The facility will entail SMT and Infotainment manufacturing capabilities like radio and navigation and is slated to be operational by the end of 2013.”
- “Globally, company is setting up experience centres for the Harman products which include Delhi, Shanghai, Moscow and New York.”
- “According to Paliwal, over 80 per cent of luxury cars worldwide are fitted with Harman audio solutions. They are the leading suppliers of advanced connectivity, infotainment, and audio to the world’s leading automakers, including Audi, BMW, Chrysler, Fiat, Ferrari, General Motors, Hyundai, Kia, Lexus, Land Rover, Mercedes Benz, Porsche, Toyota, and Volkswagen.”
- “Harman has a strong presence in Indian automotive infotainment market, with the two significant design wins at Tata and Fiat.”
- “The first Tata vehicle to include Harman products will be the limited edition Tata Aria MPV, which will include a premium branded audio system under the JBL brand.”

➤ March 5 Industry Today [article](#)

Harman launches its new award-winning Uconnect infotainment system, which allows users to utilize app-like features and has faster response times in Chrysler, Fiat in Europe and Jeep Cherokees.

- “Harman ... celebrated the European launch of the new award-winning Uconnect infotainment system for Chrysler and Fiat vehicles Premiering in Europe in the Jeep Cherokee, Harman has created a new platform which takes a significant step forward from its predecessor.”
- “Featuring off-board connectivity to entertainment and other content through the Connected Media Centre, the Uconnect infotainment system features faster response times, increased voice recognition capabilities and more realistic navigation than systems currently on board in Chrysler models. In cooperation with Chrysler teams, Harman engineers have devised the latest Uconnect 8.4A and 8.4AN systems, which were recently named ‘2012 Technology of the Year’ by AOL Autos.”
- “Uconnect will power the Connected Media Centre in many 2013 Chrysler and Fiat cars, trucks and SUVs, as well as the new Viper sports car.”
- “The platform also delivers faster response times and sharper navigation than the predecessor systems in Chrysler vehicles, and also offers drivers more extensive voice recognition capabilities.”
- “Drivers and passengers can choose anything from Internet radio stations to personalized music and audiobooks, and even access Facebook and Twitter.”
- “‘The Chinese market for telematics services will swell from 0.4 million subscribers in 2012 to nearly 4.0 million subscribers by 2018,’ noted Frost & Sullivan Senior Research Analyst Krishna Jayarman. ‘As decreasing costs

boost adoption rates, more domestic telematics services participants are expected to participate in the market, which will focus on customer retention for services after the free period.”

- “With increasing value chain integration, industry cooperation is required to ensure the development of the Chinese telematics market. For instance, to retain some level of control over navigation revenues, the most promising strategy for OEMs would be to engage and collaborate with PND suppliers. Telematics service providers must find opportunities to bundle other value-added services, as well as include basic requirements, to differentiate their solutions in the market.”
- “‘Connected navigation will proliferate with the development of cloud computing and the integration of vehicle and consumer electronics,’ concluded Jayarman. ‘Sales volume of smartphones will grow swiftly and smartphone apps will have a bigger role in the connected car environment. Several large-scale non-native firms could reap significant market success on the basis of strategic partnerships with Chinese players.’”

Additional research by Dann Mauro, Carolyn Marshall and Steven Evans

The Author(s) of this research report certify that all of the views expressed in the report accurately reflect their personal views about any and all of the subject securities and that no part of the Author(s) compensation was, is or will be, directly or indirectly, related to the specific recommendations or views in this report. The Author does not own securities in any of the aforementioned companies.

OTA Financial Group LP has a membership interest in Blueshift Research LLC. OTA LLC, an SEC registered broker dealer subsidiary of OTA Financial Group LP, has both market making and proprietary trading operations on several exchanges and alternative trading systems. The affiliated companies of the OTA Financial Group LP, including OTA LLC, its principals, employees or clients may have an interest in the securities discussed herein, in securities of other issuers in other industries, may provide bids and offers of the subject companies and may act as principal in connection with such transactions. Craig Gordon, the founder of Blueshift, has an investment in OTA Financial Group LP.

© 2013 Blueshift Research LLC. All rights reserved. This transmission was produced for the exclusive use of Blueshift Research LLC, and may not be reproduced or relied upon, in whole or in part, without Blueshift’s written consent. The information herein is not intended to be a complete analysis of every material fact in respect to any company or industry discussed. Blueshift Research is a trademark owned by Blueshift Research LLC.