

**Harman International**

C4 Consulting

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## Executive Summary

Harman International Industries Incorporated is an American company that designs and engineers consumer audio electronics and automotive entertainment and infotainment systems. Harman is partnered with Porsche, Audi, Mercedes, Mini and many other car companies. These partnerships are some of Harman's most valuable assets as the car companies completely control demand for Harman's entertainment and infotainment systems. Harman in the consumer audio electronic sector faces fierce competition from companies like Bose and Panasonic who offer high-end, branded headphones like Harman. Harman's differentiated subsidiary brands JBL, Harman Kardon and AKG Acoustics help Harman differentiate itself from other audio producers as it establishes brands centered around quality and performance. Though Harman is susceptible in the event of economic downturn, its expansion into multiple markets helps to counteract losses during recession or depression if a particular industry is struggling.

Samsung acquired Harman in March earlier this year, Harman should leverage the technological capital that they acquire from Samsung to better their own products and expand into new markets. Harman should look to improve their infotainment systems with Samsung tablet tech and video streaming. Harman already implements audio and infotainment systems in some of the world's premier car brands such as Mercedes-Benz, Volkswagen, BMW, and Chrysler. By innovating infotainment systems to the next level, they could become the market leader, as they are just a bit behind Panasonic. This improvement would come in stages. As soon as possible, Harman should start improving their infotainment systems with the integration of Samsung tablet technology. Next they should make Wi-Fi a standard part of their infotainment system, a technology they already have in cars like the Chrysler 200. Once Wi-Fi is a feature, they should turn their attention to securing streaming services, something no other car has at the moment. Once they have the best infotainment system, they should begin to focus on lobbying for self-driving cars; one, to get them on the road and two, to make sure it is not illegal for the person in the "driver's seat" to watch a video screen. When commercial production of driverless cars is set to begin, Harman should leverage their already existing automotive contracts to create the ultimate mobile office/media room.

As a second strategy, Harman should also leverage their existing consumer audio technology and Samsung's VR capabilities. With the completion of Samsung's acquisition of Harman in early March, we believe that one of the two best go-forward strategies would be to leverage the technology from both companies to meet a new consumer need. By leveraging Samsung's virtual reality (VR) technology and Harman's superior audio technology, the two companies can create a seamless, stimulating VR experience provides acuity in both sound and sight. As identified in the internal and external analysis, Harman faces stiff competition from companies like Bose and Panasonic in the consumer audio segment. However, as pointed out in the competitor analysis tool, neither Bose nor Panasonic have a foothold in the VR market, thus meaning they are less likely to react to Harman's new VR product. While both companies would certainly notice Harman's new strategy due to the fact that Harman is one of their main

competitors, the fact that both Bose and Panasonic's organizational inertia is directed in a different direction provides yet another reason for Harman to strongly consider moving in this direction. Further, as identified with the VRIO tool, Harman's commitment to R&D and exploring innovative solutions by leveraging their cutting edge, pre existing technologies, now in combination with Samsung's resources and assets, provides Harman with a sustainable competitive advantage that would help propel this adventure on its path towards peak market share. With thousands of patents pending and an impressive arsenal of existing audio and visual technology, both Harman and Samsung face a low level of threat of entry or imitation with this product, as other VR and consumer audio and video producers just do not have the necessary resources to keep up.

# Internal and External Analysis Tools

## MVV

**Note:** HARMAN is in the process of being acquired by Samsung. As we discussed in class, this can cause issues as both companies work to ensure that their missions, values, and visions are aligned and that company as a whole has a single, cohesive focus so that they can move forward together. The mission, values, and vision, as well as the PESTLE analysis discussed below are HARMAN's current positions, so these things are liable to change given the status of their acquisition by Samsung.

**Mission:** To make life more connected, entertaining, personalized, and productive

**Values:**

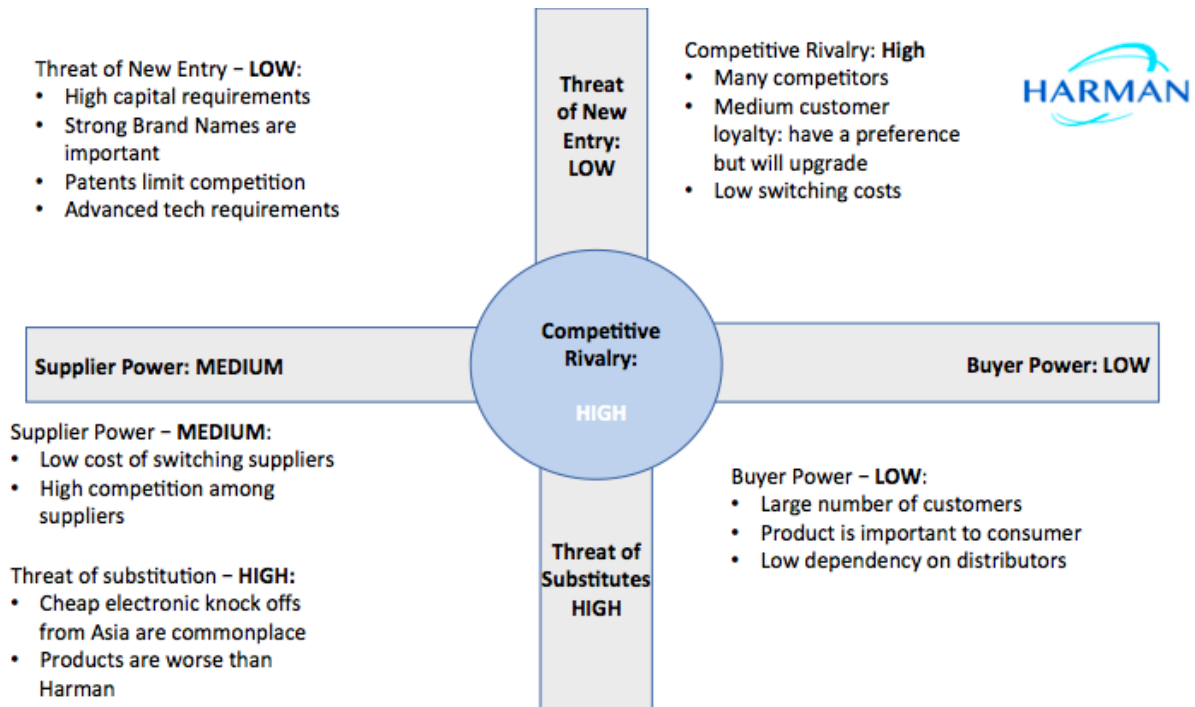
- 1) Teamwork and respect - cultivate relationships and reciprocity
- 2) Integrity - do what is right without compromise
- 3) Innovation - identify customer needs and find solutions
- 4) Excellence - relentless focus on cost-leadership, execution and quality
- 5) Inclusion - bring diverse individuals and ideas together

**Vision:** To combine passion and purpose to design and deliver smart products, systems, software and services that connect people wherever they are. We lead with integrity, innovate with intention, and drive operational excellence to inspire breakthrough performances that generate customer value and strong shareholder returns.

## **Competitive Analysis: Panasonic**

## **Competitive Analysis: Bose**

## **Porter's Five Forces**







### SWOT-TOWS Matrix

SWOT-TOWS Matrix	External Opportunities (O) 1. Increase consumer focus, esp in US, on technology in cars 2. Add Harman headphones to the VR headsets Samsung sells 3. Adding video streaming to infotainment system 4. Creating a fully integrated media system in a car	External Threats (T) 1. Highly competitive market with cheap Chinese products flooding in 2. A lot of substitutes are available 3. Fluctuating global economies can affect business operations
<b>Internal Strengths (S)</b> 1. Diverse product portfolio with strong brands in each product category. Ex JBL, Soundcraft 2. Caters to both Rich and Middle class people so revenue generation is stable 3. Continuous innovation helps it to stay ahead of the competition 4. Majority of the world's luxury cars are equipped with Harman's premium audio and infotainment systems	S3O1-Harman could use the tablet technology that Samsung excels in to improve their infotainment systems S4O4-Since Harman is already in many cars, creating a fully integrated system with audio and visual elements could expand their business into even more cars S1O2-Because Harman also makes personal listening devices, they could integrate their headphones into the Samsung VR headset and sell it as a package deal	S1T1-While there is plenty of knock off brands, Harman can use its well known names to show that there brands are quality S2T3- Even in times of economic downturn, Harman can sell products due to its diverse line up, including many price levels of headphones, speakers, and car audio systems
<b>Internal Weaknesses (W)</b> 1. Intense competition and duplicate replicas affect the brand and margins 2. Low profitability because of competition from other big players(both branded and un-branded)	W2O4-If Samsung create a far superior infotainment system, they could take large portion of the market and improve their margin W1O2-Since there are many options for headphones, Harman could pair headphones with every Samsung VR headset to get guaranteed sales	W1T1-Due to the intense competition, Harman should look to acquire or squeeze out competition W2T2-Try to differentiate themselves through heavy commitment to R&D and exploring innovative solutions

(15) (16)

VRIO

	V	R	I	O	Competitive impact
	Is it valuable?	Is it rare?	Is it hard to imitate?	Is the firm organized around it?	
Current infotainment system tech					Temporary competitive advantage
Variety of consumer audio solutions					Temporary Competitive Advantage
Existing partnerships with leaders in the automotive industry					Sustainable competitive advantage
Commitment to R&D and exploring innovative solutions by leveraging their cutting edge, preexisting technologies (with Samsung)					Sustainable competitive advantage

# PESTLE

## Environmental:

- South Korea trying to reduce pollution due to poor air quality esp. in Seoul
- Over the past five years, the South Korean government has made a massive push for clean energy.
- Institutionalization of Green Movements in the politics of South Korea

## LEGAL:

- Challenges of getting self-driving cars on road-liability for accidents
- Possibility of self-driving cars getting hacked remotely and controlled
- Have to design current infotainment systems with safety in mind

## TECHNOLOGICAL:

- Emerging self-driving car market
- Improvements in automation will drive down prices
- South Korea world's biggest investor in R&D
- High technology adoption rate: 94% of adults use internet (89% in US)



## POLITICAL:

- South Korea's president Park Geun-Hye was impeached on March 10 on corruption charges.
- Higher chance progressive candidate will be elected and may want to shift economy away from *chaebol* (large family-owned conglomerates)
- Ongoing political instability and uncertainty have made structural economic reform almost impossible
- Ranks fifth in the world in Ease of Doing Business Index.

## ECONOMICAL:

- Inflation rate 2.2%-Highest since 2013
- Interest rate 1.25%-been steadily decreasing since 2012
- \$1 to 1137.04 South Korean Won
- Revenue equal to over 80% of GDP brought in by top 10 companies

## SOCIAL:

- South Korea
- Population growth rate of .53%, been steadily declining since 1950s
- Median age 41.2
- Urban population: 82.5% of total population
- Health expenditures: 7.4% of GDP (10% less than US)

(17) (18) (19)

## Internal and External Analysis

Harman as a manufacturer of audio and entertainment systems falls within the tech space. Harman deals with business to business transactions and business to consumer transactions. In Business to Business, they sell audio entertainment and infotainment systems to car manufacturers. Additionally they sell speakers that go in devices like computers, TVs and other devices. They sell directly to consumers as well, dealing in the personal audio sector offering products from headphones to speakers. Thanks to Harman's diverse structure it is positioned well against some external pressures. However, Harman faces intense competition within the audio entertainment market and is partially dependent on external factors like the US and Global economy and other industries such as automotive.

In order to succeed in the audio entertainment system, Harman has established itself as a high-end producer of high-quality, trustworthy headphones and speakers, however the industry is incredibly saturated as Harman faces competition from companies like Bose, Pioneer ASK, Foster Electric and Panasonic. As exemplified by the competitor analysis tool, Harman is able to stay competitive with these other companies by combining a focus on both marketing and research and development, allowing themselves to be able to differentiate themselves from other producers of audio equipment. With such a plethora of products that vary in terms of price, quality and distribution within the audio entertainment industry, Harman has to differentiate itself by consistently offering high quality products that carries a strong brand name with it. In order to create this strong brand name, Harman has developed differentiated brands under their umbrella Harman brand including JBL, Harman Kardon and AKG Acoustics.

In the car entertainment and infotainment systems, Harman has succeeded through partnerships with successful car companies and "a technical expertise in designing and integrating acoustics, navigation, speech recognition and human-machine interfaces into complete Infotainment Systems uniquely adapted to the specific requirements of each automobile model (Harman 10-K)". However, Harman's success in the car entertainment and infotainment system is completely reliant upon the car companies they are partnered with. Should the partnered car companies run into trouble, Harman could potentially be left exposed with no remedy.

Additionally, the automotive industry, much like the tech industry, is heavily reliant upon both the domestic economy and global economy. Luxury items like headphones, loudspeakers, cars, and other consumer electronics are dependent upon the disposable income of its consumers. The majority of Harman's sales are focused in the United States making the U.S. economy an important factor in Harman's success. As a producer of high end products, decreases in disposable incomes can have a tangible impact upon Harman's sales. When the 2008 recession hit, Harman experienced \$2.9 billion dollar drop in sales due to the decreased disposable income (Harman International Industries Incorporated).

Also important to Harman's decision making process is the legal and political environment and framework in which they operate. Technology has long outpaced legislation, as

governmental lag and lobbying by entrenched players causes gridlock and a slower than expected evolution of laws and regulation. This is particularly important to consider when considering the potential ramifications for the timeline of Harman's entry into cutting edge technological areas like technology for self driving cars.

## Strategy 1

Harman could be the next big innovators in the in-car entertainment sector. Currently car entertainment systems are just beginning to become more than a GPS and a music player. Most current infotainment systems have phone connectivity, some have music streaming capabilities, and the most advanced systems are now a Wi-Fi hotspot. Harman could bring infotainment systems to a new level of innovation by adding video streaming capabilities, and integrating Samsung app and tablet technology into their docks. Harman should focus their research and development on creating a truly cohesive, connected audio and visual system for cars.

The development of the truly immersive infotainment system would come in stages. Harman already has an impressive audio system for many of the world's luxury car brands. Some of their innovations that set them apart are a software-based sound equalizing system, 360-degree sound spectrum, high performance amplifier technology, and custom tuning for each car. Harman should improve their infotainment systems by utilizing Samsung's tablet technology as shown as one of the ways they can combine their strengths and opportunities in the SWOT-TOWS matrix. This would increase the quality of the touch screen interface, and allow users to download apps for a more customizable experience. Harman should also not limit itself to only having a tablet in the front of the car. The front seats should also have a dock on their rear for the backseat passenger. The front would have the master settings for parents to control what their children can play, access, and see.

The next step for Harman to increase their market share is to make the Wi-Fi hotspot standard on all their systems. Some Harman outfitted cars, such as the Chrysler 200, already have Wi-Fi connectivity. Not only will this make the cars more attractive, but also it will catch the attention of other car manufacturers looking to improve their infotainment systems. This is a necessary step in creating a truly integrated audio-visual system for the car. Once Wi-Fi is standard, Harman can then turn its attention to video streaming. Netflix already has a history of becoming an app for various devices such as the PlayStation 4, Xbox One, LG Smart TVs, and many others. Harman infotainment systems should become the first destination for video streaming in cars. Samsung already have a Netflix app for their tablets, so the technology is already available. They should try to sign an exclusive deal to become the only car infotainment system able to stream Netflix to increase its prestige and cut others out of the market before they can join. Harman already has a deal with Amazon web services, so adding their Prime video streaming service should be relatively easy. In the beginning only the docks in the back will be able to stream, so that the driver would not get distracted and it complies with the law.

Once video streaming is a permanent feature, Harman can work towards perfecting the media experience in cars. Driverless cars would increase the focus on their infotainment systems because all passengers would be free to enjoy their ride. The US secretary of transportation says that driverless cars will be prominent all over the world by 2025 (21). This means that driverless cars could be on the road in the United States in as little as six to eight years. Harman needs to help shape policy surrounding these autonomous cars in order to speed up the timeline for the implementation of their newfound technology. Legislators have to try to walk the balance between not sufficiently protecting consumers and over-regulating an infant market, so lobbying is a necessary step to achieve change. Harman and Samsung should lobby against any sort of over-regulation. Since the legality of having a video player in view of the driver, and the according punishments for breaking said regulation, is currently determined on a state-by-state basis, Samsung and Harman should focus their lobbying efforts on achieving a federal law that

states that since there is no driver in a self-driving car, it is not illegal to have video in the front seat. As self driving cars advance and move away from normal conventions of the car, car designers will realize that there is no reason for all the seats to face the same way. When the seats can all face the middle, this opens up a wealth of possibilities to improve the consumer experience in the car. For example, an inward facing car could have a large Samsung screen on one side. It could retain the touch technology and also have a camera so it can work as a video-calling device. Given that you might be travelling with someone who wants to watch or play something else, the TV could also have split-screen tech to allow for more watching options. Combined with Harman's expertise with audio, this would turn the car could become a mobile media room, office, and personal relaxation bubble.

The infotainment market is highly profitable for Harman and will increase if innovations are made. In 2015 Harman generated \$4.32bn in revenue from infotainment sales, only second to the \$4.51bn of Panasonic (22). In 2015, the market accounted for a total of \$39.22bn; given a CAGR growth rate of 13.24% experts expect the market size to increase to \$73.03bn by 2020 (23). If Harman makes these innovations, especially in video streaming, they could easily become the market leader. The GPS based infotainment systems like Garmin are also on the way out, so Harman could pick up sales from them. While Panasonic and Bose do have a strong presence in the infotainment market, if Harman improved their docs to include tablet technology, Wi-Fi, and video streaming, it would be unlikely that they could react in time. This is especially true if Harman gains any exclusive contracts with video streaming services. Given this information, Garmin should aim to increase their market share to 20% and increase revenue to \$14.6bn in 2020.

There are steps Harman can take to achieve the goal of mobile media room. One, starting immediately, Harman can combine their sound system with Samsung tablet technology, for the front and back of the car. Two, Harman must make built in Wi-Fi standard across all of their infotainment systems. This can begin immediately because they already have the technology. Three, starting late 2017 or early 2018 they should negotiate in-car streaming rights with Netflix, Amazon Prime, and other streaming services to increase the exclusivity and feature pack of the Harman in-car experience. Four, to make sure that laws do not hinder sales, they should, start lobbying in middle of 2018 to 2019 (closer to the actual release of self-driving cars) for it not to be illegal for the people in the front to watch their video screens. Five, when self driving cars begin commercial production somewhere around 2022, they should perfect the in-car media/office room by creating a fully integrated system capable of connecting to one's phone, and displaying movies, TV, video games, conference calls, etc.

## Strategy 2

With the completion of Samsung's acquisition of Harman in early March, we believe that the best go-forward strategy would be to leverage the technology from both companies to meet a new consumer need. By leveraging Samsung's virtual reality (VR) technology and Harman's superior audio technology, the two companies can create a seamless, stimulating VR experience that provides acuity in both sound and sight.

As it stands currently in the VR market, a variety of companies produce a multitude of offerings at a wide range of price points and quality levels. With offerings ranging from the high quality Oculus Rift, priced at an introductory price of \$600, to the lower end Merge VR goggles priced at \$61.99, there is already an array of VR products on the market. However, none of these companies produce a completely immersive audio and VR package. While many companies produce VR headsets capable of using third party headphones, this limits the cohesive nature of the VR experience, as different headphones provide different levels of audio quality. By leveraging the existing Samsung VR technology and the existing high quality Harman audio technology, a new product could be created that provides an unparalleled audio and visual experience.

VR is already a large, profitable market, valued at about \$1.9 billion in 2016. However, this market is primed for growth, and is expected to grow to a value of \$22.4 billion by 2020, including both software and hardware sales. Even famed computer scientist and entrepreneur Mark Zuckerberg has weighed in on the growing market, placing his predictions for the growth timeline for the VR market at 5 years or less. With 14% and 16% of Harman's operational EBITDA already being derived from the consumer audio and professional audio segments respectively, the move to expand their offerings in this growing consumer segment could bolster revenues by a large degree.

We are recommending this because it seems like an interesting, logical, and profitable extension of what Harman can be and already is. Harman already produces consumer audio solutions. As their website states, "With our world-renowned headphone line-up of in-ear, on-ear, over-ear and sports-headphones you can enjoy music no matter where you are or what you are doing. Noise cancellation and latest audio technologies such as TruNote enable the best possible listening experience." In combination with many of the strides that Samsung has made already in VR, Harman and Samsung stand poised to offer an innovative product not currently on the market in one of the fastest growing industries in the world.

The target market for this new audio enabled VR headset would be teenagers and young adults in their twenties and thirties, as these segments already make up the bulk of the demand in the VR market. By approaching this market first, Harman would be able to capitalize on this group's early adopter mentality, and start off on the right foot and establishing a solid consumer base for their product. Samsung's existing VR headset retails for \$129.99, entering the market at a middle ground price point. As far as pricing for this newfound VR headset, Harman should aim to price the product at a level slightly above this, coming in at around \$250 dollars. We believe



that it would not be a good idea for Harman to pursue producing various low, medium, and high quality versions of this product. The central mission behind this new audio and VR headset is to provide a seamless, fully immersive, cohesive experience. If Harman offered different tiers of the product, inherently this would imply different levels of experience, thus undermining the core mission of the product.

To ensure that they are still able to earn decent margins on this product, Harman should be sure to leverage both their existing audio technology and Samsung's existing VR technology. Also, Harman should be sure to implement both their own, as well as Samsung's, existing manufacturing, supply, and distribution networks to avoid incurring unnecessary costs and increasing the pricing of the new VR headset which could potentially hurt sales.

Harman's other options fall short in comparison to the VR make as much sense. Expanding their audio presence by offering speaker solutions for TV systems or personal computers does not make sense due to their preexisting commitment to producing a line of high quality surround sound speakers to bolster the in-home audio experience. By expanding into TVs or personal computers, Harman would risk cannibalizing their existing sales and obfuscating their current line of consumer products. In essence, this type of product expansion would not only be harmful to Harman's bottom line, but it could also confuse and blur Harman's overall marketing strategy, making it less cohesive as a brand.

Additionally, as identified in the internal and external analysis, Harman faces stiff competition from companies like Bose and Panasonic in the consumer audio segment. However, as pointed out in the competitor analysis tool, neither Bose nor Panasonic have a foothold in the VR market, thus meaning they are less likely to react to Harman's new VR product. While both companies would certainly notice Harman's new strategy due to the fact that Harman is one of their main competitors, the fact that both Bose and Panasonic's organizational inertia is directed in a different direction provides yet another reason for Harman to strongly consider moving in this direction. Further, as identified with the VRIO tool, Harman's commitment to R&D and exploring innovative solutions by leveraging their cutting edge, pre existing technologies, now in combination with Samsung's resources and assets, provides Harman with a sustainable competitive advantage that would help propel this adventure on its path towards peak market share. With thousands of patents pending and an impressive arsenal of existing audio and visual technology, both Harman and Samsung face a low level of threat of entry or imitation with this product, as other VR and consumer audio and video producers just do not have the necessary resources to keep up.

The first step that Harman should take in producing and marketing this new product is to focus on restructure and recombine the research and development divisions across Harman and Samsung. Since the acquisition has just been wrapped up and there is still organizational moving and repositioning necessary, this step should be accomplished within a timeline of roughly three months. After the organization of the R&D departments is complete, cohesive, and efficient, Harman should focus on engineering and designing this product. Since the technology already exists, all that Harman needs to do during this phase is focus on combining their technology with

Samsung's in a synergistic way and fine tuning it so that it runs smoothly and efficiently. This step should take another three months. Third, Harman should move to conduct product testing and development. With any product testing is important, but with this new VR product testing and customer feedback is especially important as the goal is to provide a top of the line standardized, immersive experience. With the customer feedback and reviews in mind, Harman should tweak the product and iron out any remaining kinks or problems, and this step of the strategy should take another three months.

The fourth step of the strategy should be to distribute the finished product through Harman and Samsung's existing channels and networks. Harman is in a unique position here as, when combined with Samsung, they have unparalleled (within the industry) access to strong distribution networks and channels. This step of the strategy implementation should take an additional three months, as Harman should take the time to make sure their product is fully stocked around the world so that this profound new experience is available to as many consumers as possible. Finally, Harman should offer the final product in combination with the next model of the Samsung Galaxy S Phone for a discounted price or a package deal, as well as a stand alone product. Samsung has already offered these kind of deals with their Gear VR line, so this is a natural extension of an already existing practice. Additionally, this would help drive up demand for the product, creating customers out of people who previously would not have considered buying it.

## Conclusion

Harman, a tech company that produces audio consumer electronics and entertainment and infotainment systems for cars, faces two unique markets. The consumer audio electronic market is oversaturated with companies who offer a wide array of high end branded products to unbranded, Chinese-produced headphones. In the automobile entertainment and infotainment system market, Harman's partnership with key car producers is an important resource as one of the limiting factors for infotainment and entertainment system demand. Harman's sales are heavily influenced by the global and U.S. economy as disposable income directly translates into sales for the high-end, consumer electronic producer. Harman's presence in multiple markets, their diversified product lines and the oversaturation of products in the consumer audio electronic market resulted in the diversified brands that fall under the parent Harman brand including JBL, Harman Kardon and AKG Acoustics. In March 2017, Samsung completed their acquisition of Harman providing new technology and opening new potential markets for Harman.

Both of our strategies seek to leverage the combined technology of Samsung and Harman. Our first strategy is to create the best infotainment system available. To do this, they must first improve the docs in cars to have Samsung tablet technology and add additional docs to the back of the car. Once the tablets have been implemented, Harman should add their Wi-Fi capabilities to all of their infotainment systems. With the proliferation of Wi-Fi, Harman can then focus on securing contracts with video streaming services like Netflix, Amazon Prime, and Hulu to become the first provider of streaming video in cars. These innovations would give Harman the best infotainment system on the market. After achieving that, they should work to shape policy in regards to self-driving cars, pushing for early as possible release and legality of watching video in the front seats. Once self driving cars are ready for production on a massive scale, Harman should work to perfect the in-car entertainment system. This would include video conferencing, television, movies, video games, split screen tech, and phone integration.

## Bibliography

22. "Automotive Infotainment Vendors 2015 | Ranking." *Statista*. Web. 17 Apr. 2017.
16. "Cutting-edge Technologies." *Harman Kardon Automotive Technologies*. Harman, n.d. Web. 17 Apr. 2017.  
  
Harman International Industries Incorporated. *2009 Annual Report*, 2010. *Annual Reports*. Web. April 12, 2017.  
  
*Harman International | Connected Car | Lifestyle Audio Solutions*. N.p., n.d. Web. 17 Apr. 2017. <<https://www.harman.com/>>.  
  
"Harman International Industries (HAR)." *WIKI invest*. N.p., n.d. Web. 17 Apr. 2017. <[http://www.wikininvest.com/stock/Harman\\_International\\_Industries\\_\(HAR\)](http://www.wikininvest.com/stock/Harman_International_Industries_(HAR))>.
21. Hars, Alexander. "US Secretary of Transportation: Driverless Cars All over the World by 2025." *Driverless Car Market Watch*. Driverless Future, 19 Sept. 2015. Web. 17 Apr. 2017.  
  
"HAR's Competition by Segment and its Market Share." *CSIMarket*. N.p., n.d. Web. 17 Apr. 2017. <<http://csimarket.com/stocks/competitionSEG2.php?code=HAR>>.
18. *Korea, South Demographics Profile 2016*. Index Mundi, n.d. Web. 17 Apr. 2017
23. Maida, Jesse. "Top 5 Vendors in the Automotive Infotainment Market from 2016 to 2020: Technavio." *Business Wire*. N.p., 24 Oct. 2016. Web. 17 Apr. 2017.
15. "Samsung Electronics to Acquire HARMAN, Accelerating Growth in Automotive and Connected Technologies." *Samsung Global Newsroom*. Samsung, 14 Nov. 2016. Web. 17 Apr. 2017.
17. "South Korea's Presidential Scandal." *BBC News*. BBC, 10 Mar. 2017. Web. 17 Apr. 2017.
19. "South Korea Inflation Rate 1966-2017 | Data | Chart | Calendar | Forecast." *South Korea Inflation Rate | 1966-2017 | Data | Chart | Calendar | Forecast*. Trading Economics, n.d. Web. 17 Apr. 2017.