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# A Strategic Audit of Google

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# **A Strategic Audit of Google**

An Undergraduate Honors Thesis Submitted in Partial fulfillment of University Honors Program Requirements University of Nebraska-Lincoln

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#### **Abstract**

Google is the premier tech company. One of the largest, most successful companies on the planet, Google derives the overwhelming majority of its revenue from Google AdWords to the tune of \$136 billion last year. The following is an analysis of Google's strengths, competition, and place in the market and society. Although Google needs no help dominating the ads industry — and thus no suggestion has been provided — should the digital ads industry falter, Google faces an existential threat. To counter this, various strategies to diversify Google's sources of income, all of which leverage Google's existing assets and competencies to make the change as simple as possible, have been recommended.

Key Words: Google, tech, ads, strategy, cloud, computing, smart

#### **Background**

"Google is a very large research lab funded by a very small but very profitable ads agency." - Unknown

Google was founded in 1998 in Menlo Park, California by Larry Page and Sergey Brin (Page, Brin, n.d.). In 1999 and 2000, Google did not generate a profit, losing money instead. Starting in 2001, the first full year of AdWords revenue, Google began to make a profit. A paltry 7 million in 2001, Google's net income was nearly 13 *billion* in 2017: nearly 200,000 percent growth. This can be attributed almost exclusively Google AdWords, which generates 87 percent of Google's revenue (Securities and Exchange Commission, 2004).

Google AdWords, the service generating the bulk of Google's revenue, was founded in October 2000 (Google AdWords, 2015). Founded with only 350 advertising partners, Google AdWords contained over 1 million advertisers as of 2015. These advertisers earned over \$111 billion in extra revenue in 2013 by advertising on Google's platform. Google itself reaped about \$50 billion for displaying those ads: nearly 50 percent of the revenue but for only a single company, not distributed across millions. Clearly, when businesses win on Google AdWords, Google wins *more* (Securities and Exchange Commission, 2005).

To advertise with Google, companies create groups of keywords and associate them with ads they wish to be shown. They also set a maximum bid: the maximum amount of money they wish to spend if multiple companies compete for the same ad slot. For example, a restaurant might have an ad for their website associated with the words "steak", "burger", "restaurant", and more. When users search on Google for any of those keywords (or other, semantically related keywords such as "dinner", "hot dog", or "pizza", because Google's algorithm is smart enough to know that in general, users are interested in broader category of things when they're searching). If only one company has an ad associated with the searched keywords, then that ad is displayed, and the company pays Google its maximum bid divided by its quality score, a measure determining how relevant the ad actually is to the user. When multiple companies compete for the same ad slot, they "bid" on the slot according to another Google algorithm. The companies are ranked based on the product of the maximum bid and the quality score. Thus, to appear higher on the page, a company can either pay more or have more relevant ads. Likewise, a company that pays less but has significantly higher quality score will place above a company that pays more but has a significantly worse quality score. This is a win for users, because they get more relevant ads, and a win for companies, because they can pay less. In this case, the price charged is the next highest company's maximum bid divided by the current company's quality score, plus one cent. This is the lowest price the company needs to pay to still have the highest score. This is another huge win for companies. When bidding, any "excess bid" is returned to the company rather than absorbed by Google.

## **External Situation Analysis**

Google occupies a lofty position in the online ads industry. Possessing 32.4 percent market share, Google is the largest player in online ads, ahead of the next place competitors Facebook and Amazon. This is not an insurmountable position, though, as Google's market share has been declining while Facebook's has been growing and Amazon's has been exploding. Affecting all companies, the biggest technology shift in online ads happened a decade ago, when mobile became a platform. And Google's ads, among many, *many* other portions of its business, have experienced record shattering fines at the hand of the European Union. Google is not safe from domestic politics, either, as certain projects have come under internal and external scrutiny, proving controversial and costing Google goodwill.

Google has found a strong position amongst the competitive rivalry of the online ads industry. The threat of new entrants is surprisingly low. While the internet makes it easier than ever before to set up a website and start courting customers, these new entrants would lack one crucial factor: network effects. For anyone to want to advertise on your platform, you have to have a lot of users who would be able to see those ads. A young new company would have to fight the tech giants such as Facebook and Google for customers. Network effects provide a strong feedback loop. The established companies have the most users, so they get the most ads, driving more use, while new companies have no users, so they get no ads, so there's no reason to use their platform. Ask Google: Google Plus failed miserably against Facebook because Facebook already had the network. And if Google can't beat already established network effects, how could a new company? Suppliers have a medium amount of power. Google spent roughly \$10 billion on data centers in 2016 (which is only a rough estimate of total expenses). While this is only about 10 percent of revenue, Google's net profit is also approximately \$10 billion, so an increase in prices from suppliers would cut into net profit significantly. Threat of substitution is medium. Online ads is a new industry; companies have advertised in more traditional mediums (television, newspaper, etc) for a century. Although the number of substitutes and the precedent for using them are quite high, the cost of online ads is so much lower and the return on investment is so much higher that it's they can't seriously be considered contenders. Online ads are by far more effective than other mediums, but there are still plenty of alternatives, as discussed later. Likewise, power of buyers is very low. There are enough buyers that losing the business of any individual company is negligible and coordination among buyers would be untenable. Considering all these factors, competitive rivalry is low.

The fact that online ads is an order of magnitude better than other mediums such as ty and print is non-trivial and warrants some justification. First, the cost of online ads is drastically lower than other mediums, by an order of magnitude in the case of print ads. The cost to reach 1000 people with Facebook ads is 25 cents, with Google AdWords \$2.75, with television ads \$7, and with newspaper ads a whopping \$32 (Sinha, 2016)! It's 10 times more expensive to advertise in newspapers than in Google AdWords and 100 times more expensive than in Facebook ads. Switching from newspaper ads to digital ads instantly increases impressions by 10 to 100 times. Second, online ads are highly targeted; print ads are not. With print ads, those 1000 people you spent \$32 to advertise to may have no desire to purchase your product. Even if someone is reading the Sports page, for example, that doesn't mean they want to buy basketball shoes, meaning your ad was completely useless. However, the money is lost regardless. With Facebook, you can target your ads based on the posts people have liked, pages they've interacted with, and friends they have. Rather than using a vague and amorphous category like "sports", our hypothetical basketball shoes provider can at least target people who like posts about basketball, follow the pages of famous basketball teams. and more. Google AdWords has an even further advantage — one which explains its higher return on investment despite Facebook costing less to reach people. Google AdWords targets on keywords, which is even more specific than demographics. Our hypothetical basketball fan is not necessarily interested in buying basketball shoes just because they like basketball, at least not at the moment they're shown the ad. But when they search Google for "shoes", "basketball shoes", "sports apparel", "Michael Jordan", or any other set of similar keywords, they're almost certainly in the market for basketball shoes. Google AdWords lets our hypothetical basketball shoes seller display the ad to people who are looking to purchase basketball shoes when they are looking to purchase basketball shoes. Third, digital ads provide a wealth of data to tune and optimize an ad campaign. With other mediums, businesses have no idea whether new customers are due to ads or due to random chance. Short of hassling strategies such as an ad-specific contact or promotional code or high level, long term analyses prone to confusing signal with noise, it's impossible to judge the efficacy of an ad campaign.

Digital ads, on the other hand, provide this information readily to businesses. They can see exactly how many people clicked on the ad, how many of those people actually made a purchase, what that purchase was, and whether different keywords or demographics were more likely to click on the ad and make a purchase. This data is a goldmine lets marketers optimize future ad campaigns, achieving an even higher return on investment. Fourth, these ad campaigns can be adjusted in real time. If a marketer analyzes the data and realizes a certain ad is not useful, they can change that ad in mere moments. On the other hand, once a newspaper is printed, that ad is permanent. Combined, all these factors demonstrate why other advertising mediums are not serious substitutes to online ads. Except in very specific cases, businesses will be able to make more sales for less money and gain more insights with digital ads than with any other medium.

The internet is a relatively new technology, and companies have been able to keep ahead of lawmakers and regulations for its entire tenure. "Disrupting the industry" very often means "using new technology to find a loophole around regulations", as we have seen with companies like Uber. So one might expect Google not to have to worry about the political environment, but this is not the case. Surprisingly, it is not America that Google has had the most issues with. It's the European Union. Facing 3 groundbreaking fines since 2017, Google has lost billions at the hand of the European Union for alleged antitrust violations and monopolistic actions. In 2017, the European Union fined Google \$2.7 billion — more than twice the highest previous fine ever levied for antitrust ruling — for allegedly favoring ads for Google products over third party products in searches (Scott, 2017). In 2018, the European Union fined Google a hefty \$5.1 billion dollars for favoring Google search on the Android operating system (developed by Google, but used by a wide variety of other companies in the smartphone industry). Google appealed this charge but faces even higher fines if it doesn't cease these practices. To put this number in perspective, the 2017 fine was \$2.78 billion, and net income was \$12.662 billion, meaning the fine was 22 percent of net income for the year (Alphabet, 2018). The 2018 fine was \$5.071 billion, and net income was \$30.736 billion, meaning the fine was 16 percent of net income for the year (Securities and Exchange Commission, 2019). These increasingly exorbitant fines make a meaningful impact on Google's bottom line, even for a company whose revenues are in the hundreds of billions.

Google is not safe from domestic politics either, specifically social attitudes. While Google has garnered a large amount of goodwill (valued at nearly \$18 billion according to 2018 financial statements (Securities and Exchange Commission, 2019)), recent controversies threaten to turn the public against Google. First, in 2018, Google cancelled Project Maven after internal and external outcry. Project Maven was a Pentagon contract for Google to develop artificial intelligence for drones to more accurately identify images. However, these analyses could be used to identify whether a human was in the image so the drone could perform a lethal strike. Unsurprisingly, this proved controversial, and news of the project leaked to the public. Eventually, Google cancelled the project to mollify internal outcry and save face. Although the project was only \$9 million, Google hoped Maven would result in more lucrative projects down the line, and the controversy cost Google (an undetermined amount of) goodwill. (Wakabayashi, Shane, 2018). Later in 2018, controversy erupted yet again when it was revealed Google was doing search engine research in China, appearing to be preparation for a Chinese version of Google search that censors content anathema to the Chinese government, Google exited China in 2010, but it seemed to be eyeing a return to the largest country — and consumer base — on Earth, censorship and hacking be damned. This project, codenamed Dragonfly, experienced a similar reaction: an outraged public and even more outraged employees. Although Google has not cancelled Dragonfly like it cancelled Maven, the controversy represents a loss of goodwill Google can no longer capitalize on (Conger, Wakabayashi, 2018).

Google is usually on the bleeding edge of technological advancements, and while usually this works in Google's favor, sometimes it can shoot itself in the foot. More and more of the world is switching to voice assistants (or smart assistants, or smart speakers), and Google is trying to use its eponymous Google Assistant to keep pace with Amazon Alexa, Microsoft's Cortana, and Apple's Siri. All of these allow the user to search the web much like you would type a query into Google. Often, this is significantly easier than opening a laptop or unlocking a phone, navigating to a web browser, and typing in your query. However, there's one crucial feature web browsers have that voice assistants don't; ads. Although companies don't publish statistics on how many searches are made through smart assistant, it's safe to say as more people adopt smart assistants, more searches will be made on them. As of 2018, 47.3 million U.S. adults, about 20 percent of the population, owned a smart speaker (Perez, 2018). Voice assistants lack ads because audio ads are incredibly intrusive compared to visual ads. A smart speaker can only play one thing at a time, whereas web search results can display multiple ads and results seamlessly. Once, Google actually tried inserting an ad into Google Assistant results. When users asked Assistant to "tell me about my day", a command that usually reads the calendar events, reminders, the weather, and commute times, they were played an advertisement for Beauty and the Beast, which was in theaters at the time (Ingraham, 2017). Users were taken aback by the flagrant intrusion of ads into their morning routine. Backlash occurred immediately. Google apologized for the message and hasn't done something similar since. This puts Google in a tricky position: as more searches shift to voice assistants, more ad opportunities will, too. But users don't accept audio ads, so those opportunities vanish into the aether. It's not impossible to insert ads into smart assistant results, but they will have to be incredibly subtle. Therefore, there will be significantly fewer opportunities to advertise, meaning significantly less revenue for Google. If the smart speakers capture more of the search market, Google's overriding source of revenue could be at risk.

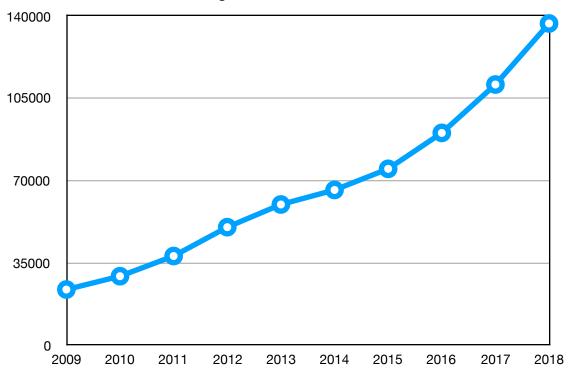
## **Internal Situation Analysis**

If Google's external situation paints the picture of a company being assailed from all sides by politics and controversy, Google's internal situation paints the picture of a well oiled machine gobbling up any and all ad revenue it can find. Google's strengths and opportunities outweighs its weaknesses and threats, delivering Google a decisive competitive advantage in the online ads industry.

Google possesses the highest market share in the online ads industry. In 2018, Google's US market share was 37.1 percent, compared to the next highest Facebook's US market share at 20.8 percent (Spangler, 2018). Google is growing explosively, even 18 years after its inception: revenues increased by 23 percent from 2016 to 2017 and another 23 percent from 2017 to 2018. Number of full time employees grew by 22 percent from 2016 to 2017 and 12 percent from 2017 to 2018 (Statista, 2019). Interestingly, net income *declined* by 35 percent in 2017 before rebounding by 142 percent (a 57 percent increase over 2016) in 2018 (Securities and Exchange Commission, 2019). As previously stated, Google's brand value is incredibly strong: its goodwill is valued at approximately \$18 billion. All of this combined demonstrates Google's domination of the online ads industry.

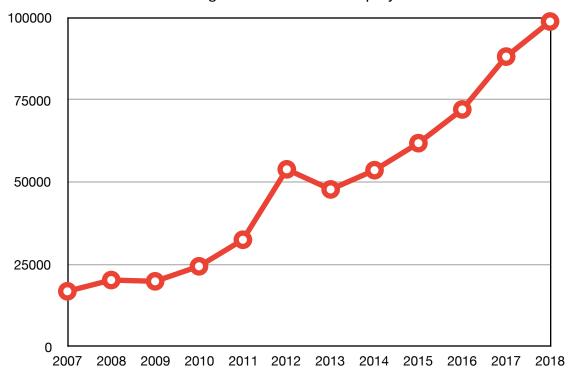
AdWords biggest strengths are its wide user base, its unparalleled return on investment, and the quality of its employees. Google serves over 5.6 billion searches per day (Aleksandra, 2018) for a wide variety of search queries, many of which include ads. The biggest difference between Google AdWords and ads on Facebook, the next biggest competitor, is that Google ads are targeted at *keywords* while Facebook ads are targeted at *demographics*. This gives Google a decisive advantage. With a keyword search, the ads are for products or services exactly like that users are searching for, while with a demographic search, the ads are for products that the sort of people, based on demographic, friends, pages liked, and more, *might* 

Figure 1: Revenue in Millions



like, maybe. This translates into a stronger return on investment for Google AdWords campaigns than Facebook ads campaigns have (Kayla, 2018). Google maintains this domination by hiring the best software engineers in the entire tech industry. In 2014, Google hired only 0.2 percent of its applicants (Nisen, 2014). For comparison, Apple, another tech giant located less than 10 miles from Google, hires 2 percent of its applications — a rate 10 times higher than Google's (Fulton, 2012). Google attributes its massive success to the caliber

Figure 2: Number of Employees



of its employees. However, AdWords is not a silver bullet that generates revenue out of thin air. AdWords campaigns require more upfront investment to be as successful as possible. Advertisers must identify which keywords are most relevant and perform search engine optimization to boost its quality score (therefore increasing position on the page and decreasing cost). For advertisers unwilling to invest this time or unable to do this effectively, Google AdWords may not be as effective.

By far, Google's biggest opportunity is the eponymous Next Billion Users: "the latest generation of internet users to come online on smartphones in places like Brazil, China, India, Indonesia and Nigeria" (Sengupta, 2018). In 2016, 2.1 billion people had smartphones, mostly in the western world. But there are more than 7 billion people in the world. Previously undeveloped countries are developing at a rapid pace, gaining access to resources and infrastructure such as smartphones and the internet that the developed world takes for granted. And Google is poised to take advantage of this. In 2018, more than 3 billion people had smartphones (a 50 percent increase from 2016), over 1.5 billion of which are in Asia. This is a huge market for Google to capitalize on, and capitalize on it Google does. For example, 90 percent of smartphones in India run Android. Google has a huge advantage here, because Apple products are prohibitively expensive, especially for low income families in the developing world. Furthermore, Google Search *also* has more than 90 percent market share in India (Singh, 2018). Given that India contains 1.3 billion people, this is a hugely lucrative market that Google is well on the way to capturing.

#### **Strategic Alternatives**

Google AdWords is making money hand over fist to the tune of over \$130 billion a year. Clearly, Google AdWords needs no help being successful. Google just needs to continue doing whatever it's doing currently. However, the success of Google AdWords is a double edged sword: if anything were to happen to the online ads industry, Google's very existence would be threatened. Additionally, Google still faces threats from government regulation and public support, so it could afford to tread more carefully in the political and social arena.

Unfortunately, no statistics are available on how much search traffic is driven by smart assistants, so it's impossible to say how much of a threat this is. But the growing popularity of voice assistants such as Amazon Alexa and Google's own Google Assistant poses a potentially existential thread to Google's main source of income. Visual ads are seamless; audio ads are intrusive. Google Search's method of presenting 2 to 3 ads at the top of search results would be untenable with voice assistants. Imagine having to listen to 3 ads every time you ask Google Assistant a question! Google tried playing an ad during a user's morning routine, and backlash was fierce. Google will not be able to leverage its tried and true strategies with voice assistants. Fortunately, there are 2 main ways Google could use similar strategies in tandem with new product lines to maintain its stranglehold on the online ads industry. First, Google can aggressively display ads for gueries that where they wouldn't be intrusive. For example, if someone searches for "restaurants near me", Google Assistant reads out several options of nearby restaurants. Google could easily prioritize restaurants which have paid for ads in this order, and users wouldn't notice a different. This could use the exact same algorithm as traditional AdWords: combining relevance and price to select the best ad and displaying it at the top of the page, or in this case the start of the list. Not all gueries are amenable to subtle ads, so Google would have to charge higher prices for Google Assistant ads to compensate. Second, Google released the Google Home Hub in 2018 (Pino, 2019). The Google Home Hub is a more expensive version of the original Google Home that comes equipped with a screen. It still has a speaker, so it still functions as a voice assistant. But in addition to speaking results, it can also display results on its screen. Thus, it can display traditional ads like it does on Google Search. This represents a way to salvage Google AdWords in a voice assistant world. Once

again, if a user searches for "restaurants near me", Google Home Hub can speak results but also display them on the screen. This is the exact same interface used by traditional Google Search, so Google AdWord's can use the exact same method of selecting and presenting ads it has always used. The biggest issue is the Google Home Hub is more expensive than even the original Google Home. Although statistics don't exist on the number of Google Home Hub sales, it's reasonable to believe it's significantly less than the Google Home, and especially the Google Home Mini. The price tag is a significantly harder sell than the cheap Google Home Mini, However, if Google Home Hub can salvage Google's massive ads revenue in the voice assistant age, the Google Home Hub should be used as a loss leader. Massively decrease the price, convincing people to adopt in en masse, much like how people purchase multiple Google Home Minis for several rooms in their house. As long as it increases Google AdWords revenue, it's worth it. According to estimates, revenue for all Google Home products was \$3.4 billion in 2018 (D'Onfro, 2018). Slashing the price on Google Home Hub (\$150) to the price of Google Home Mini (\$50) reduces revenue to approximately \$1.1 billion. This isn't even 2 percent of Google's AdWords revenue for 2018. Sacrificing \$2 billion in Google Home Hub revenue by making it a loss leader is well worth it to preserve \$130 billion in ads revenue.

Further diversifying Google's revenues, Google should heavily focus on its Google Cloud segment. Cloud computing is lead by Amazon AWS and Microsoft Azure, with Google Cloud dismally in *fifth* place, behind IBM and Oracle as of 2018 (Dignan, 2018). Cloud computing has grown explosively in the last several years, with Amazon AWS experiencing steady growth of upwards of 47 percent year over year and Microsoft Azure seeing 93 percent growth (Griswold, 2019). Google has been infamously silent on exact numbers, but Google Cloud's revenue is estimated between \$1 and \$2 billion a quarter, for \$4 to \$8 billion a year, compared to AWS's and Azure's \$20 billion revenues (Miller, 2019). If Google can achieve parity with the other big players in cloud computing, this would help buoy revenues in case of a downturn in the ads industry. \$20 billion is a far cry from \$130 billion, but the market is still growing rapidly. Google should focus more resources on its Google Cloud division to be less depend on the ads industry for its survival as a company.

Google has faced nearly \$8 billion in fines from the European Union in the past 2 years, with another in the pipeline as soon as EU courts finish deliberating. This is a non-negligible amount of its revenue, and an even more significant amount of its net income. Although Google disputes that it did anything wrong or violated antitrust laws, at the end of the day it only matters whether the EU considered the fines valid, which it did. To avoid facing even more exorbitant billion dollar fines, Google should take care to be completely unbiased when selecting which ads are displayed to users, so unbiased that there's no ambiguity. Avoiding \$8 billion in fines easily outweighs a marginal decrease in ads for Google products (especially given that ads would be displayed instead, which earn revenue for Google in other ways). Alternatively, Google can take the nuclear option: leave the European Union entirely, Google would not longer have to deal with billions in fines or oppressive regulations (Elgan, 2014). Google already made a minor move in this direction. Spain tried requiring Google to pay news publishers for displaying summaries of their articles in search results, arguing copyright violation. Rather than pay this so called "Google tax", Google simply pulled Google News from Spain. However, Google makes over \$36 billion a year in advertising revenue from Europe (Weckler, 2018). While \$8 billion in fines over 2 years is a lot, it doesn't outweigh \$36 in revenue. Although, officially pulling out of Europe does not mean Europeans can't use Google and hence see ads. They would just have to use a different country's version, which is as simple as changing the URL and automatically translating the page if necessary. It's unclear how much of Google's \$36 billion in revenue would be lost if it pulled out of Europe. The backlash from Europe and other governments afraid Google will try to do the same to them could easily outstrip the cost of fines. The nuclear option of leaving the EU entirely is probably not the worth the risk, emotionally satisfying as it might seem sometimes.

On the other side of the globe, China represents a rapidly developing country with rising disposable incomes and access to technology. Google is already fully committed to servicing the Next Billion Users to join the information age in developing countries, but Google left China years ago due to hacking and censorship. A bold action based on principles, the move left Google without access to China's lucrative market, allowing homegrown companies more amenable to government policy like Baidu to step in. Google appears to already be eyeing a return to the Chinese market with Project Dragonfly. But this comes at a cost: the Chinese government will insist on censorship of certain topics, along with the risk of more hacking. Some argue that a China with a censored Google is better than a China with no Google at all, and even a censored Google will be freer than a local company more subservient to the state. Many disagree, though, and the controversy could cost Google goodwill.

## Strategic Recommendation and Implementation

Google should continue as it has for the last 18 years: offer the best search results, attracting the most advertisers, and making the most money. Google can leverage its existing competitive advantage — its superior ranking algorithm — to sustain its user base and make Google AdWords the most valuable platform for advertisers and marketers. This is the strategy Google has used to sustain 23 percent increases in revenue and 22 percent increases in number of employees for multiple years in a row. Google can make slight adjustments to the priority it gives to its own products so it can avoid billions in antitrust fines at the hand of the European Union. However, this assumes the online ads industry is going to keep growing, or at least standing still. Google's overriding source of revenue is ads, so if the online ads industry ceases to be the cash cow it currently is, Google will have to replace that income or risk severe downsizing or even dissolution.

The biggest current threat to the online ads industry is the voice assistant revolution -arevolution in which Google is participating. As more of the population interacts with technology, specifically search, using voice, Google has less and less of an opportunity to display ads and therefore earn revenue. There's nothing inherently stopping Google from playing audio ads before various search results and other Google Assistant commands, but it ruins the user experience. The one time Google attempted audio ads, the backlash was immediate and fierce. It hasn't been tried since. Fortunately, certain gueries are amenable to presenting ads. Queries about local businesses, restaurants, and other requests that may present a list of options can seamlessly include ads without users feeling like their workflow has been interrupted. Many of these queries can leverage Google's current keyword-quality algorithm to select these ads. Google should market to current customers to convince them the necessity of advertising on voice assistants, which will help convert AdWords' current user base to this new medium. To ease the transition, Google should also offer in depth tutorials, guides, or even consultation to help customers develop ads that work when listened to rather than when viewed, since the skills are not necessarily transferrable. Furthermore, the Google Home Hub, a voice assistant with a screen, can be used to present ads in the traditional way while still servicing the voice assistant market. The Google Home Hub should become a loss leader. having its price reduced on par with the Google Home Mini to increase penetration. The original Google Home will become obsolete at this point, so it will either be phased out or need a quality improvement to justify its higher cost. Google hasn't released statistics on how many search queries come from smart assistants versus traditional web search, so it's impossible to say whether this is actually necessary or not. But if it is, Google should prepare to invest heavily in audio ads on its Google Assistant.

Finally, Google can devote more resources to its Google Cloud division to capture a greater share of this burgeoning market. Currently, Google Cloud is a minor player compared to

Amazon AWS, Microsoft Azure, and even IBM and Oracle. But Google can leverage its existing infrastructure to provide first-in-class cloud solutions and pry market share away from its competitors. Google is already implementing some of this strategy: Google Cloud is hiring a huge number of employees year after year, even for a company growing as fast as Google. This diversifies Google's sources of incomes and makes it less vulnerable to downturns in the online ads industry. Although \$20 billion (how much AWS and Azure earn in revenue) a year is a far cry from \$130 billion a year (how much Google AdWords earns in revenue), it's still a significant amount and should be expected to grow notably in just a few years. Only 3 years of 47 percent growth is required to triple revenues, turning \$20 billion into \$60 billion, which could compensate for 50 percent loss in ad revenues.

#### Conclusion

Google's remarkable growth and revenue reveals a company with a strong competitive advantage which knows how to leverage it. Google AdWords is the industry standard for good reason. To put it simply, "don't fix what ain't broke". However, there's no guarantee online ads remains such a cash cow indefinitely. Because nearly all of Google's revenue comes from ads, a decline in the digital ads industry could devastate Google. A potential threat to online ads already exists in the form of the rapidly growing voice assistant market. Fortunately, Google is well posed to leverage existing strategies in the voice assistant future. Additionally, there is plenty of room for growth in Google Cloud, which sits in a quickly growing industry. With these considerations in mind, Google will no doubt be a trailblazer for the years to come, just as it has for the last 20 years.

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