AN IN-DEPTH ANALYSIS OF GOOGLE'S SUSCEPTIBILITY TO ANTITRUST LITIGATION AND A BREAKUP AS EVIDENCED BY PREVIOUS, NOTEABLE, AMERICAN ANTITRUST CASES

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Introduction

Many people are familiar with the movie *WALL-E,* where every aspect of life on the Axiom is almost completely dominated by one corporation: Buy n Large (BNL). BNL is a massive umbrella corporation that has achieved a complete monopoly in every aspect of life for the population of the Axiom. Children are indoctrinated from birth in BNL schools to buy BNL products as they age and are cared for by BNL robots in a BNL spaceship as they continue on a route through space determined by BNL artificial intelligence.

While this world would be a nightmare for many people, it is a dream and an aspiration for many corporations. Most successful companies work to eliminate competition and push their profit as high as it will go, sometimes at the public expense. This is the situation that the United States found itself in at the beginning of the Progressive Era. Vast corporations, such as Standard Oil in petroleum, U.S. Steel in steel, J.P. Morgan in banking, etc., had almost completely controlled their markets. It wasn't until the presidency of Theodore Roosevelt that the Sherman Antitrust Act of 1890, which was made to protect the American public from anti-competitive behavior and punish companies for participating in such behavior by any means fit, was truly used by breaking up the big trusts.[1]

Since then, and with the help from the Clayton Antitrust Act of 1914, which was made to reinforce the Sherman Act and take a harder stance against monopolization, many harmful monopolies have been pursued by the Department of Justice (DOJ) under antitrust law.[2] Today,

[1] Sherman Antitrust Act of 1890, S. 209, 51st Cong., 1st Sess. (as passed, July 2, 1890).

[2] Clayton Antitrust Act of 1914, H.R. 730, 63d Cong., 2d Sess. (as passed, Oct. 15, 1914).

many large companies again dominate their competition, but these companies instead deal in the digital world rather than the physical world. Amazon, Apple, and Alphabet, the parent company of Google, are showing signs of monopolistic practices and market control. So, before they have the chance to become a real-life BNL, it must be decided if they are truly harmful monopolies that need to be broken up by the Federal Government.

The researcher decided to focus specifically on Alphabet, which will be henceforth referred to as Google since Google is the largest and most powerful company under Alphabet and many situations addressed in this study occurred before the creation of Alphabet. Google has long dominated the digital search and advertising markets. In 2008, after only twelve years of existence, Google was already at the point at which it had a clear monopoly over the digital search and advertising markets.[3] Its most significant search and advertising competition, Yahoo!, had twenty percent of the market share compared to Google's seventy percent. As these companies tried to merge, the Department of Justice immediately took action and prevented the merger. This was done because it would give the resulting company an almost complete monopoly over digital search and advertising.[4]

Although this hindered Google, the blocked merger did nothing to dampen Google's already established market dominance. With this search dominance, Google decided to branch out beyond the world of search engines and made other services that could be used in tandem with Google search. For example, Google Maps took away significant traffic from MapQuest,

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[3]Desjardins, Jeff. "This Chart Reveals Google's True Dominance Over the Web." Visual Capitalist. Last modified April 20, 2018. Accessed March 7, 2019. https://www.visualcapitalist.com/this-chart-reveals-googles-true-dominance-over-the-web/.

[4]"Google and Antitrust." *Berkeley Technology Law Journal* 25, no. 1 (2010): 709-10. http://www.jstor.org/stable/24118661.

the most popular mapping website at the time, by putting Google Maps results at the very top, rather than the more popular MapQuest.[5]

Additionally, Google has already received fines of over 4 billion Euros from the European Commission because of how Google has bundled Google search with the Android OS. [6] This obvious Google search bias to favor its services over others has led to an uproar amongst Google's competition calling these practices anti-competitive and that they should be used as justification to break up Google.[7] Another solution suggested is to work to dismantle the service integration that has been pioneered by Google by forcing the company to publish its algorithms as well as give more top page publicity to competitors, such as MapQuest or Yahoo Finance.[8] In contrast, others view Google's search and advertising monopoly as an opportunity to benefit society. This comes from the idea that very profitable corporate monopolies are able to better care for their workers and push towards benefits for the larger society.[9]

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[5]Hazan, Joshua G. "Stop Being Evil: A Proposal for Unbiased Google Search." *Michigan Law Review* 111, no. 5 (2013): 789-820. http://www.jstor.org/stable/23812653.

[6]European Union. "European Commission Press Release Database." Europa.eu. Last modified July 18, 2018. Accessed December 10, 2018. http://europa.eu/rapid/press-release_IP-18-4581_en.htm.

[7]Ammori, Marvin and Luke Pelican. "COMPETITORS' PROPOSED REMEDIES FOR SEARCH BIAS: SEARCH "NEUTRALITY" AND OTHER PROPOSALS." *Journal of Internet Law*, 05, 2012. 1, https://explore.proquest.com/document/1018427634?accountid=5522.

[8]Hazan "*Stop Being Evil: A Proposal for Unbiased Google Search*"

[9]Hausman, Jerry, Timothy Tardiff, and Alexander Belinfante. "The Effects of the Breakup of AT&T on Telephone Penetration in the United States." *The American Economic Review* 83, no. 2 (1993): 178-84. http://www.jstor.org/stable/2117661.

Literature Review

In order to put into context Google's previously discussed supposed anti-competitive actions, the researcher reviewed what happened with four American companies that were previously involved in antitrust litigation: the Standard Oil Company of New Jersey, the International Business Machines Corporation (IBM), the American Telephone and Telegraph Company (AT&T), and the Microsoft Corporation. Additionally, the researcher has analyzed various arguments that have been made both in favor of and against monopolies such as Google and the aforementioned companies.

The Standard Oil Trust, which was directed by the Standard Oil Company of New Jersey, was the first of these four companies to be heavily pursued by the Government. The company was the industrial titan of its time, and dominated the petroleum industry. It was able to subvert many Government regulations due to a previous Supreme Court case which gave corporations protections under the Equal Protection Clause of the Fourteenth Amendment, and it was able to place itself among the wealthiest companies in recorded history.[10] However, as the Gilded Age became the Progressive Age, modern scholars have noted that Standard Oil began to lose some of its profit and edge due to rising competition,[11] with estimates that Standard Oil had around a 60 to 65 percent, according to Daniel Yergin.[12] However the public as well as Government

[10]Keller, Morton. "The Making of the Modern Corporation." *The Wilson Quarterly (1976-)* 21, no. 4 (1997): 58-69. http://www.jstor.org/stable/40260534.

[11]Crandall, Robert W., and Clifford Winston. "Does Antitrust Policy Improve Consumer Welfare? Assessing the Evidence." *The Journal of Economic Perspectives* 17, no. 4 (2003): 3-26. http://www.jstor.org/stable/3216929.

[12]Yergin, Daniel. The Prize: The Epic Quest for Oil, Money, and Power. New York: Simon & Schuster, 1993.

officials still saw the company as the near-total petroleum trust that it was back in the 1880s, and President Theodore Roosevelt's Department of Justice decided to take Standard Oil to court for violating the Sherman Antitrust Act. The argument presented by the DOJ was not that Standard Oil was currently engaging in predatory and monopolistic practices. On the justification that Standard Oil worked to destroy the "potentiality of competition" the Supreme Court ordered that Standard Oil be broken up into 34 independant companies. The companies that arose out of the Standard Oil breakup would eventually grow to form into Exxon-Mobil, Chevron, Marathon, and a large part of British Petroleum.[13]

IBM was the first leader of the computer industry. It was the leader in computer development throughout the early 60s and encompassed around 70 percent of the computer industry market, and this was the start of an antitrust investigation and lawsuit that would be the downfall of IBM's computer ambitions.[14] This Government effort was supported by IBM's competitors since they would have to worry far less about IBM and could be more aggressive with their strategy since IBM was preoccupied with an antitrust case.[15] After a thirteen year-long lawsuit and a large sum of corporate and government funds, IBM left intact but no longer the most dominant figure in the computer market.[16] While IBM was fighting a legal battle, the computer market had shifted away from mainframes to personal computers and the Internet was

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[13]Standard Oil Company of New Jersey v. United States, No. 398 (May 15, 1911).

[14]Kerjan, Liliane. "ANTITRUST LAWS: The IBM and AT & T Cases." *Revue Française D'études Américaines*, no. 35 (1988): 89-102. http://www.jstor.org/stable/20871797.

[15]Reynolds, Alan. "The Return of Antitrust?" *Regulation* 41, no. 1 (Spring, 2018): 24-30, https://explore.proquest.com/results/document/2030154285?accountid=5522.

[16]United States v. International Business Machines Corporation, No. 95-591. https://www.law.cornell.edu/supct/html/95-591.ZO.html.

beginning to show up in some circles.[17] This was a battle that IBM's computer department has never been able to recover from.

AT&T was the powerhouse of telecommunications up until its demise in 1984. The company has had a very rocky relationship with the Government since the Progressive Era. Their first brush with regulation was in 1913 and 1919 when they narrowly avoided an antitrust suit and nationalization, respectively. Unlike the other three companies being discussed, AT&T was subject to many Federal regulations, but was able to dominate despite them. Because of the company's domination of the market despite heavy regulation, the DoJ was especially intent on seeing the AT&T case through.[18] Although the court proceeding were progressing, AT&T decided to not wait for the court's decision and voluntarily signed an agreement in 1982 which broke itself up in 1984 into the various Bell Corporations.[19]

Microsoft was the immediate successor to IBM in the computer industry, and its rise was greatly facilitated by the long series of antitrust cases that IBM had to spend money on to fight rather than maintain their dominance.[20] Microsoft was brought to court by the DoJ under the claim that Microsoft was engaging in anti-competitive practices by bundling the Internet Explorer browser with the Windows operating system, at the expense of competitors such as

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[17]Lenard, Thomas M. "Introduction: Antitrust and the Dynamics of Competition in High-Tech Industries." *Review of Industrial Organization* 38, no. 4 (2011): 311-17. http://www.jstor.org/stable/23884982.

[18]Kerjan "*Antitrust Laws: The IBM and AT & T cases*"

[19]United States of America v. American Telephone and Telegraph Company (District Court of the District of Columbia).

[20]Reynolds "*The return of antitrust?*"

Netscape and Opera.[21] However, as the case wore on and the time and legal fees began to grow larger and larger, Microsoft began to have a harder time competing with competitors unburdened by a long-lasting antitrust case. This was what allowed Apple and Google to both make spaces for themselves in the hardware and software markets which were previously dominated by Microsoft.[22] History had repeated itself and Microsoft became a chip in the political game, which lasted until the case eventually ended in a settlement.[23]

Additionally, the level of societal beneficiality brought about by these companies before and after their antitrust litigation must be examined. Looking to AT&T, more regard the breakup of AT&T as an absolute disaster than as a beneficial action. AT&T was divided into many regional Bell corporations which were the only telecom companies the people had, so there was still no choice.[24] Additionally, many of the Bell companies refused to interact with what was left of AT&T because they saw AT&T as their competition. This would not have been a problem if AT&T had not kept the entire long-distance call infrastructure in an effort to keep the "Baby Bells" close by. These actions resulted in long distance calls being a nightmare for the phone companies and people alike.[25] In contrast, there are some who believe that this localized

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[21]UNITED STATES of America, Appellee, V. MICROSOFT CORPORATION, Appellant.

[22]Heiner, David A. ""MICROSOFT": A REMEDIAL SUCCESS?" *Antitrust Law Journal* 78, no. 2 (2012): 329-62. http://www.jstor.org/stable/43486983.

[23]"Bill Gates, the Prince: The Muddled Microsoft Case and Stone-Age Antitrust Laws." *The New Atlantis*, no. 1 (2003): 125-27. http://www.jstor.org/stable/43152859.

[24]Crandall and Winston "Does Antitrust Policy Improve Consumer Welfare?

[25]Robinson, Kenneth. "Maximizing the Public Benefits of the AT&T Breakup." Journal of Policy Analysis and Management 5, no. 3 (1986): 572-83. doi:10.2307/3323262.

coverage provided by the Baby Bells was a beneficial thing because the companies were able to better care for their customers than the larger AT&T Corporation was able to.[26] As mentioned previously, the IBM case helped to bring about the rise of personal computers and the Internet. This action was very advantageous since it shrunk the world down and brought about the globalized world we experience today. In the same vein, the Microsoft case helped further push the Internet to prominence because newer, more digitized companies such as Apple and Google arose to push humanity into the digital age.[27]

Gap

Many of the sources gathered and discussed focus on previous antitrust cases, monopolies in general, or Google specifically. However, no source delves in-depth into why various companies were or were not broken up under antitrust law, and whether Google has more commonalities with the companies that were broken up, which are Standard Oil and AT&T, or with the companies that were not broken up, which are IBM and Microsoft. In other words, no one has yet to stand Google against the judicial precedent of previous antitrust cases to see where Google stands amongst them. In doing this comparison, two important questions must be addressed:

1. Is Google at risk of being subjected to Federal antitrust litigation based on its similarities to companies that have previously been subjected to antitrust litigation?

[26]Hausman "*The Effects of the Breakup of AT&T on Telephone Penetration in the United States*"

[27]Lenard "*Introduction: Antitrust and the Dynamics of Competition in High-Tech Industries*"

2. If Google is at risk of Federal antitrust litigation, is Google at risk of being broken up as a result of said litigation?

The first question lays the groundwork for the second and establishes the relevance for the study as a whole, because if it ends up that Google is not at risk of litigation, then there would be no purpose in even addressing the second question. The second question takes the information gathered while answering the first question and applies it to a litigation setting. This will be able to provide the most probable answer to the question. By understanding the court rulings for various monopolistic companies, it will be easier to both understand why previous antitrust cases resulted in what they resulted in as well as how to go about answering the questions at hand. As they currently stand, these questions fit perfectly within the gap in the research because they connect previous antitrust cases to Google and also acknowledge other views on monopolies.

The two variables faced were the issues of the different opinions that could ask to hear such a case, and the product that intellectual nature of Google's product compared to the more physical nature of the products of the aforementioned companies that were previously pursued by antitrust litigation, namely Standard Oil, AT&T, IBM, and Microsoft. There are many different individuals who could hear a theoretical antitrust case against Google, and their ideology is a very important indicator as to whether the Government would even bother sending them an antitrust case against Google. For example if the courts were filled with pro-business justices, then the DoJ would probably be less inclined to bother with a suit against Google than if the courts were filled with anti-business justices. Therefore, it must be determined how business-friendly each of the courts are so that it can be determined whether the DoJ would go through with litigation. Secondly, the difference between physical and intellectual product must be taken into account. Standard Oil, IBM, AT&T, and Microsoft, to an extent, all dealt in tangible products that were physically given to customers. On the other hand, Google's product is its search and advertising algorithms which brings the Internet to the fingertips of the masses. This difference in product must be accounted for because the courts could decide more or less favorably towards Google based on their opinions with regards to intellectual properties.

Methods

This information ties back to the study the researcher has conducted. The researcher performed a qualitative content analysis study, with the goal of finding a definitive answer as to whether Google is at risk of dealing with antitrust litigation against it or not, in the near future.[28] The researcher chose this particular approach because it fits the legal, societal, and moral themes that the researcher has found while conducting research. Also, the researcher believes that this approach is the most effective method toward achieving the end goal of determining the possibility of Google be pursued by antitrust litigation in the near future.

The researcher also created a framework to best visualize and answer both of the research questions posed. The framework, shown blank as Figure 1 and completed as Figure 2 in the "Research Findings" section, works to display information in a way that provides both context of the situation as well as insight towards answering the posed questions. This was done firstly by placing Google between the companies that were broken up and those that were not, which was done to best be able to compare Google to both sides as well as show the differences between the two.

[28]Creswell, J. W., & Creswell, J. D. (2018). Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.). Thousand Oaks, CA: SAGE Publications.

Figure 1 displays the categories under which Google will be compared to the companies that were previously pursued by antitrust litigation. After the discussion of the completed Figure 2, the researcher answered whether or not there is potential for Google to be pursued by any litigation, and the likelihood of a breakup if litigation is a possibility. In order to insert accurate data into Figure 1, the researcher has examined all of the sources in the "Literature Review" section and determined whether any of them have mentioned characteristics listed in Figure 1. If such characteristics exist, then the researcher put an "X" in the corresponding cell.

Figure 1	Standard Oil	AT&T	Google	IBM	Microsoft
Primary Industry					
70% + market share					
Anti-competitive Product Bundling					
Predatory Buyouts and Acquisitions					
Price Fixing					
Vertical/Horizontal Integration					
Broken Up?					

The "Primary Industry" and "Broken Up?" categories at the top and bottom of the far left column serve as informational rows which the researcher included so it was clear what industry all of the companies dominated at the time of their antitrust lawsuit, or what industry they would have an antitrust lawsuit in for Google's case, and which companies have already been broken up or not, respectively. The researcher put data in these categories in the "Research Findings" section as words rather than Xs because the researcher believed that the words would draw attention to their categories so that those categories would be looked at and focused on before looking at the rest of the data table. “Primary Industry” was included at the top because it is a category that relates directly to each of the companies and is not necessarily related to any of the categories below, but is very important to keep in mind before a conclusion can be reached. “Broken Up?” was included at the bottom of the table because it is the culmination of the categories underneath “Primary Industry” and shows whether or not the presence, or lack thereof, of the other categories in each company’s practices eventually lead to a breakup of the company or not.

The other ideas in the far left column were chosen for several reasons. The “70% + market share” category was chosen because the Federal Government has informally made a seventy percent market share as the approximate threshold for considering the initiation of antitrust litigation, which is obviously required to even have an antitrust case. The “Anti-competitive Product Bundling” category was added as it was the major reason that Microsoft’s antitrust case came about and went on to the extent that it did.[29] The “Predatory Buyouts and Acquisitions” tab was put in Figure 1 on account of Standard Oil’s actions during the height of its power and because of how the Federal Government blocked the 2008 merger of Google and Yahoo! on the grounds that it would create a near unstoppable monopoly.[30] “Price Fixing” is part of Figure 1 because the outlawing of price fixing by the Sherman Act, as put by Robert Bork, is, “one of the greatest accomplishments of antitrust” because it formally criminalized the primary method by which monopolies had tyrannized their markets at the

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[29]United States v. Microsoft Corporation (D.C. Cir.).

[30]"Google and Antitrust." Berkeley Technology Law Journal 25, no. 1 (2010): 709-10. http://www.jstor.org/stable/24118661.

expense of consumers.[31] "Vertical/Horizontal Integration" references the actions of companies that either control the entire supply chain, from raw extraction to final sale to consumers, or one level of that chain in entirety, which will be defined as having a market share of 90 percent or greater or having company divisions dedicated to every step of a product from raw extraction to final sale. The researcher also analyzed the political leanings of the Federal courts which could theoretically hear an antitrust case against Google. From looking at that data, a conclusion was reached that the diversity of thought and political leanings within those courts would lead to the courts not being a factor in hearing a Google case. When the researcher also looked at the political leanings of Attorney Generals over the course of the four previously named antitrust cases, the same conclusion was reached.[32]

Research Findings

After going through the literature and finding the data outlined in the "Methods" section, the researcher entered the appropriate data into Figure 2.

[31] Bork, Robert H., and Ward S. Bowman. "The Crisis in Antitrust." Columbia Law Review 65, no. 3 (1965): 363-76. doi:10.2307/1120380.

[32] "ATTORNEYS GENERAL of THE UNITED STATES." In *Office of the Attorney General*. United States Department of Justice. Accessed January 14, 2019. https://www.justice.gov/ag/historical-bios.

Figure 2	Standard Oil	AT&T	Google	IBM	Microsoft
Primary Industry	Petroleum	Telecommunications	Digital Search and Advertising	Digital Computer	Computer Software
70% + market share		X	X	X	X
Anti-competitive Product Bundling			X		X
Predatory Buyouts and Acquisitions	X				
Price Fixing	X	X			
Vertical/Horizontal Integration		X	X		X
Broken Up?	YES	YES		NO	No

To start off, the "Primary Industry" row was derived from the industry discussed as the primary industry in each company's antitrust case, and from the Berkeley Technology Law Journal for Google.[33] The "Broken Up?" row was determined by looking at the outcome of each of the antitrust cases as discussed in the literature for Standard Oil, IBM, AT&T, and Microsoft.[34] Google's cell in this row was left blank to show that Google is the company being analyzed as it currently has not had a Federal antitrust case brought against it. "Anti-competitive Product Bundling" was found to be applicable to Google and Microsoft. Microsoft's applicability in this category is made especially clear with this statement made in the court opinion for Microsoft's

[33]"Google and Antitrust." *Berkeley Technology Law Journal* 25, no. 1 (2010): 709-10. http://www.jstor.org/stable/24118661.

[34]"*Bill Gates, the Prince: The Muddled Microsoft Case and Stone-Age Antitrust Laws*"

antitrust case that it was, “quite clear to [the bench] that the motive of Microsoft in bundling [Windows and Internet Explorer] was not one of consumer convenience.”[35] The same idea was present with Google Search and Maps in that, “immediately following Google's integration of Google Maps into its core search results, Google Maps's market share skyrocketed, primarily at the expense of MapQuest’s.”[36] The “Predatory Buyouts and Acquisitions” category applied to Standard Oil as seen in Keller’s mention of how Standard Oil executives “figured out a way for Standard Oil to absorb competitors without running afoul of its Ohio charter, which forbade it from holding the stock of other companies.”[37] The researcher concluded the data for the “Price Fixing” column by noting how “the Courts read the Sherman Act to condemn price fixing, as in the case of. . . .the powerful trusts [t]hat controlled oil [(Standard Oil)]. . . .” as stated in Kerjan’s writing[38] and AT&T’s antitrust case, which stated that “AT & T was able to deter competition by manipulating prices for access to the Operating Company networks.”[39]

The numbers to determine “70% + Market Share” and “Vertical/Horizontal Integration,” in addition to the versatility possible to qualify under the latter, were determined and marked for Google, AT&T, IBM, and Microsoft by looking at Jumpshot via Visual Capitalist for Google’s

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[35]United States v. Microsoft Corporation (D.C. Cir.).

[36]Hazan "*Stop Being Evil: A Proposal for Unbiased Google Search*"

[37]Keller "*The Making of the Modern Corporation*"

[38]Kerjan "*ANTITRUST LAWS: The IBM and AT & T Cases*”

[39]United States of America v. American Telephone and Telegraph Company (District Court of the District of Columbia).

numbers,[40] Kenneth Robinson for AT&T's data,[41] Liliane Kerjan for IBM in 1967,[42] and Forbes for Microsoft in 2000, respectively[43]

It is important to again elaborate on the data for Standard Oil's market share in 1911 from Daniel Yergin's *The Prize*. Yergin states that, "[Standard Oil's] control of refining capacity declined from over 90 percent in 1880 to only 60 to 65 percent by 1911."[44] This market dominance in 1880, combined with the subversion of Federal legislation it had previously performed, created a lasting dislike of the company on the part of American Progressives, who were able to bring litigation with during Theodore Roosevelt's presidency.[45]

Discussion

After analyzing the study's findings, the researcher decided the answer to the driving questions behind this study:

Is Google at risk of Federal antitrust litigation? Yes.

Is Google at risk of a breakup as a result of said litigation? No.

[40]Desjardins "This Chart Reveals Google's True Dominance Over the Web."

[41]Robinson, Kenneth. "*Maximizing the Public Benefits of the AT&T Breakup*"

[42]Kerjan "*Antitrust Laws: The IBM and AT & T cases*"

[43]Worstall, Tim. "Microsoft's Market Share Drops From 97% to 20% In Just Over A Decade." Forbes. Last modified December 13, 2012. Accessed March 12, 2019. https://www.forbes.com/sites/timworstall/2012/12/13/microsofts-market-share-drops-from-97-to-20-in-just-over-a-decade/#3e1b4d4a51cf.

[44]Yergin *The Prize: The Epic Quest for Oil, Money, and Power*.

[45]Keller "The Making of the Modern Corporation."

These two conclusions were reached primarily because of Google's similarities to IBM and particularly Microsoft, rather than AT&T and Standard Oil. Like IBM and Microsoft, Google is also the technology giant of its day. All three companies saw a very rapid rise to dominance in their respective markets. IBM was subjected to litigation because of its rise to a more than 70 percent market share, and Microsoft dealt with litigation because of its bundling of Internet Explorer with the Windows operating system. Google has fallen under great scrutiny for how it has bundled its services, notably Google Maps, with Google search, similarly to Microsoft's bundling. Neither IBM nor Microsoft was subjected to a breakup by the Federal Government because the courts that heard their cases saw the field as having changed out of both companies' favor. Focusing more on Microsoft and Google, both companies also saw near all-encompassing market shares in their primary market. Furthermore, Microsoft resolved their antitrust case by paying settlements to the Federal Government, and Google experienced a somewhat similar fate when they paid large fines to the European Commission after losing a European antitrust suit.

In contrast, Standard Oil and AT&T carried out much of the same overarching integration and domination that Google is practicing today. However, the industries in which Standard Oil and AT&T participated in physically prevented most potential competitors from defeating them: since you cannot find oil just anywhere and it is not sensible to build telephone lines nationwide if someone has already brought lines to almost every household. Contrastingly, it could be easily argued that Google could have a competitor arise very quickly and far easier than Standard Oil and AT&T could see a competitor rise because anyone can have a chance to compete with Google as long as they have a computer, knowledge of coding, and find someone willing to do business with them. In other words, companies such as Google and Microsoft deal with intellectual property, which is thought of as free thought rather than a tool of business,whereas Standard Oil and AT&T dealt with physical commodities, which are seen as tools of business.

Limitations

Although the researcher created a comprehensive framework that was able to analyze whether or not Google is at risk of antitrust litigation and if it is at risk of a breakup, there were some aspects of antitrust that were not covered for one reason or another. One limitation of the researcher's study was the availability of information that could be used in the framework. Being a high school student, there are sources that are simply not able to be seen by the researcher, whether they be part of a private university library, internal corporate documents, or simply undigitized in a far off location. This limited the scope of the study the researcher conducted because more internal aspects of monopolies, such as anticompetitive corporate attitudes, were not able to be studied. Another effect of this limitation is the resulting limitation of analyzed categories. This limitation is separate from the previously stated limitation because there are areas that the researcher attempted to explore, such as employee pay, where the researcher found data for some companies but not others. A third limitation of the researcher's study is the number and type of companies analyzed in the framework. The researcher only looked at four companies that had dealt previously with Federal antitrust litigation, but the researcher failed to look at any company that had not dealt with antitrust litigation. This could provide an entirely new angle to the study by comparing companies to companies, such as energy companies, that have not dealt with Federal litigation before. Additionally the researcher's limited supply of companies that had dealt with antitrust litigation gave the same weight to all of the different antitrust outcomes, but proper emphasis on the more common outcomes could have been created by the inclusion of more companies that have dealt with Federal antitrust litigation.

Conclusions

There has not been any study previously that has taken several companies that have dealt with Federal antitrust litigation before and have been broken up or not broken up, and then compared those companies to a large monopoly that has not already dealt with Federal antitrust litigation. With the framework set forth in this study, other companies can be analyzed along the same or similar guidelines. Under these guidelines, it will be clear whether or not a company is at risk of Federal antitrust litigation, and whether or not that company is at risk of a breakup as a result of said litigation. This kind of data could be very useful for members of large, monopolistic or near-monopolistic companies to figure out whether or not they need to change their practices to avoid Federal antitrust litigation, and they can also see if they are at risk of a breakup if litigation should come to them.

Future steps to take using the results of this study would be to apply the framework the researcher created to other tech giants such as Apple or Amazon, to both get an in-depth at their business practices, as well as find out whether or not these companies are at risk of an antitrust lawsuit, and even possibly a breakup. Another next step to take would to be to work to remove the current limitations of the framework as discussed in the previous section by adding more companies that have and have not dealt with Federal antitrust litigation, finding more data about all of these companies, and creating more categories in the framework through which the companies can be compared to each other. Another step to take would be to take companies that already have dealt with Federal antitrust litigation and analyze them through the framework. This would be done to better understand why these companies were broken up, and can help give a better understanding of these companies as well as companies that have not dealt with antitrust litigation from the Government.

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