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Title: YouTube's Company Case Analysis

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Abstract

In recent years, with the rapid development of smart phones and wireless networks, YouTube has become an indispensable APP in the mobile phones of citizens, and has an endless stream of users. This study introduces the company background of YouTube and uses swot analysis to find company's

strengths, weaknesses, opportunities and threats. In chapter two, this study uses three level strategy to find out the key audience of youtube and what kinds of functional level strategies YouTube uses to attract audiences. Draw a strategic map and analyze it in chapter three, concludes that the main goal of YouTube is to increase revenue. In chapter four, this study uses five forces analysis to analyze the barriers to entry in the market are relatively low, the bargaining power of suppliers are weak because their services or products depend on Youtube's need and the bargaining power of buyers are also under the weak site. But YouTube has some competitors within the industry for example Vimeo, YouKu, Dwango, Dailymotion, etc. so the competitive rivalry is high. In chapter five this study uses strategic group analysis and chooses "content" and "premium platforms" to be the two variables. In chapter six, this study uses resource and capability analysis to find out that YouTube's standout resource is its technology and do the VRIS analysis. National Diamond Analysis Of Youtube take five attributes into consideration and these determinants create the national environment in chapter seven. In chapter eight, this study focuses on BCG matrix with the addition of analysis of synergy among the strategic business unit (SBUs). The main goal of this chapter is to analyse the synergies of Alphabet company using the BGC tool. Alphabet is a multinational technology that specializes in internet-related services and products. According to these different analyses, this study enhances the understanding of YouTube's advantages and favorable opportunities, and its position in the audio-visual market. This study also pays more attention to the weaknesses and threats of YouTube.

Keyword: YouTube, Video, Strategy, Free Video Sharing Platform, Strategic Map

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Chapter 1

Company background and SWOT analysis of YouTube

1.1 Company Background

YouTube currently is the most successful, powerful, and influential online video service provider in the industry. YouTube provides video upload, distribution, display, and browsing services, and its system processes tens of millions of video clips daily.

In February 2005, YouTube was founded by Chad Hurley, Jawed Karim, and Taiwanese student Steve Chen who are former PayPal employees. YouTube's original intention meant to assist the sharing of recorded video clips between friends, and it gradually became a memory repository and publishing place for internet users.







Figure 1: Founders of YouTube from the left, Chad Hurley, Steve Chen, and Jawed Karim

The first video uploaded on youtube was uploaded at 8:27 pm on April 23, 2005, and the uploader was the YouTube account "jawed" used by founder Jawed Karim. The video was shot at the San Diego Zoo in California. The content is Karim standing in front of the elephant display area. It is only 19 seconds long and has no special content, but it symbolizes a new beginning for digital networks.

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First Video uploaded on YouTube by one of the founders Jawed Karim linked:

https://zh.wikipedia.org/wiki/%E6%88%91%E5%9C%A8%E5%8B%95%E7%89%A9% E5%9C%92

In 2005, Youtube had officially launched the beta's homepage version that was available to the public, and in 2019, they had the latest redesign of Youtube's homepage.

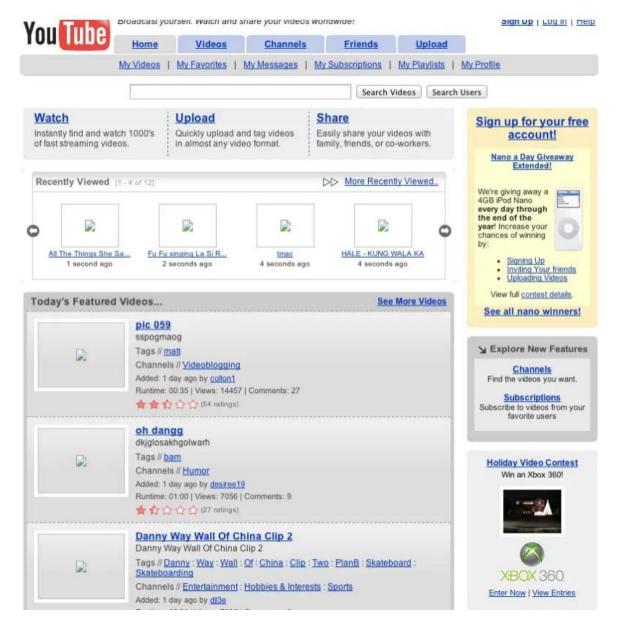


Figure 2: YouTube's first homepage design

1.1.1 Youtube's purpose

YouTube was created to be a platform for the public and uses Macromedia Flash technology to provide content, including movies and TV program clips, music videos, and home videos. YouTube clips can be easily put into personal blogs or other websites. Users should be aware that YouTube prohibits users from uploading short videos with copyrighted and pornographic content. On the other hand, users can view the other video's contents without restriction.

In October 2006, Google(Alphabet) acquired the YouTube website for US\$1.65 billion. During this time, YouTube has 40 million short videos, attracting 6 million views every day. In just 15 months after its establishment, it has surpassed competitors such as MSN Video and Google Video to become the most visited website of the century. Google and YouTube have also reached content licensing and protection agreements with Universal Music, SonyBMG, Warner Music, and CBS, alleviating the market's concerns that content providers may pursue infringing content and increase legal actions.

YouTube's mission is "to give everyone a voice and show them the world" (Youtube, 2019). Now, more than 1.9 billion people around the world use YouTube.

1.1.2 How YouTube earn money

The company has added the two-ads feature, which plays before the video content begins, and created its subscriber-based model, including Youtube Premium, Paid TV service, Music Premium service that offers exclusive benefits and charges a subscription fee from users.

1.1.3 Company Key Facts:

Name	YouTube
URL	https://www.youtube.com
Founded	February 14, 2005
Founder(s)	Chad Hurley, Jawed Karim, and Steve Chen
Logo	You Tube
Type of business	Subsidiary
Parent	Google LLC (2006–present)
Industry(s)	- Internet
	- Video hosting service
Geographic area	Worldwide
Headquater	San Bruno, California, USA (51,468 square metres)
CEO(Currently)	Susan Wojcicki
Employees	1,121 (2019)
Revenue	US\$15 billion (2019)

Table 1: YouTube company key facts

1.2 SWOT analysis

Strengths:

- 1. Largest Video sharing site YouTube enables its users to upload video, view, like or dislike, share, create playlists, comment, and subscribe to other users, all of it for free. It offers a wide assortment of user-generated and corporate media recordings. A variation of content consists of video clips, TV show clips, music videos, short and documentary films, educational videos, and other casual content such as video blogging and short original videos. About 500 hours of video are uploaded on YouTube every day (Omnicore Agency, 2019). It has approximately 5 billion views per day.
- 2. 2nd highest ranked website InJanuary 2020, The Alexa ranking of growth and number of followers of a website, Youtube ranked at the 2nd place. With approximately 1.8 million sites linked to YouTube. The at number 1st company is Alphabet, the parent company of youtube.
- 3. Viral concept A viral video is a video that becomes popular through a viral process of Internet sharing, typically through social media and email. The social media contents are majorly concentrated on youtube videos when it first started, and these videos usually go viral. This concept became attractive to marketers. In fact, Youtube can be called the starting point of viral marketing.
- 4. Variety of Content The name YouTube often associated with entertainment content when it comes to people's mind, although there are many categories of videos uploaded to youtube. There is a series of educational topics, such as Arts, Gardening, Softwares, Media production, and Et Cetera. In 2015, over 700,000 videos were part of YouTube Education (YouTube EDU). Videos under YouTube EDU are usually posted by well-known educational media

- such as PBS, Khan Foundation, Steve Spangler Science, Numberphile, and TED, among others.
- 5. Multi-language support Youtube is a worldwide website that supports 34 different languages, including several localized languages. This multi-language support helps increase the traffic to the site. There's also a "caption" that allows users to translate subtitles on other users' videos.
- User-friendly design Youtube has a simple interface that allows users to navigate through the website easily. Because of this, youngsters adopt it fast, and the older generation is also comfortable using it.
- 7. The parent company's revenue driver Youtube's parent company is Google, which has now changed the name to Alphabet. The core revenue of youtube comes from the advertising revenue. Youtube is one of the main revenue drivers for Alphabet, its parent company, because of the number of visitors visiting the website every day.
- 8. Live streaming became more popular Youtube launched a live streaming feature in November 2008. Live-stream is a powerful feature because it is a real time interaction, and it allows the user to be more engaged with the content better than pre-recorded video. There're many possibilities for a live stream; for example, brands can get immediate feedback, or companies can reduce costs for their training programs, Et Cetera.

Weaknesses:

 Inappropriate Contents – YouTube has been criticized over the years by activists and national governments for failing to observe the appropriate contents. Many videos have been judged for containing violent, provocative,

- and depressing content. Similarly, hatred, propaganda, and bigotry are the common topics of many videos on YouTube.
- Copyright material Youtube facing the main problem is about users being uploaded videos of the copyrighted material as original content, affecting revenue loss for the original content creator. Even movies are disclosed online very fast.
- 3. Advertisements are intrusive for users Over the last year, Youtube has changed the timing and amount of their advertisements. It now appears during the video. Also, some non-skippable advertisements are now longer. Sometimes it takes 12 to 15 seconds long, which makes some users not satisfied with using YouTube.
- 4. The high turnover rate in the workforce If compared to Youtube with other companies in the same industry, Youtube has a higher attrition rate or turnover rate. They have to spend more money than its competitors on training and development of its employees.
- 5. Lack of security Over the last year, high-profile YouTubers have been targeted by cybercriminals in what emerges to have been a highly coordinated and "massive" attack from who contacted one of the members of an internet forum with a history of trading access to hacked accounts.

Opportunities:

- Reduce dependency on advertisement The first opportunity for youtube is
 to begin paid viewership so that clients seem cut through the clamor and take
 after the things they need without ads.
- 2. Adoption of Internet and Smartphone Internet appropriation is going exceptionally quickly. Indeed, remarkably inaccessible places presently have

web. The same can be said about smartphones. With its app being ever prevalent and Android being the most embraced using the system on mobile, Youtube comes auto-installed on all mobile phones. Consequently, the adoption of Youtube is expanding.

- New environmental policies It will create a market field that can make
 YouTube possibly gain opportunities to drive the advantage into the new
 technology and be the early player to gain market share in the new product
 category.
- 4. Diminishing the cost of transportation lower shipping prices can decrease the cost of Youtube's products; thus, the company has new opportunities to boost its profitability and gain more market share by giving the benefits to customers.
- New trends in consumer behavior This can open a new market for Youtube, and It will build new revenue streams and diversify into new product categories.
- 6. **New customers from online channels** Youtube has invested in the online platform; thus, the company can take advantage of this opportunity by knowing customer behavior and serving their needs using big data analytics.
- 7. **The new technology** YouTube can apply a differentiated pricing strategy.

 To help the company secure loyal customers with outstanding service and possibly create new customers with other values.
- 8. **Stable free cash flow** The company can invest in new products and technologies to provide new opportunities to them in other product categories.

Threats:

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- 1. Since the establishment of youtube, many organizations, companies, and the public have criticized some official operation methods. For example, At the beginning of 2020, during the outbreak of COVID-19, many Youtube users complained that if the film involved "COVID-19", the film would be "yellow-labeled" and unable to obtain advertising revenue, thus affecting their income.
- Netflix Netflix took away many youtube watchers. These users are not satisfied with the number of advertisements and the low quality of videos uploaded on youtube. As a result, numbers of them have shifted to Netflix to enjoy paid content and non interrupted programs and movies.
- Vimeo Vimeo is a video platform established in 2004. Vimeo's popularity is
 that it can compete with youtube. In Vimeo videos, the absence of
 advertisements is its most significant advantage over youtube.
- 4. Social Media shared videos Videos shared on social media currently become popular; this affects the popularity drops for youtube videos. Social media platforms are attempting to produce revenue from those video content. The videos that are mainly shared on Facebook and Twitter are often directly uploaded to social media sites, and these social media sites restrict uploading youtube-linked videos.

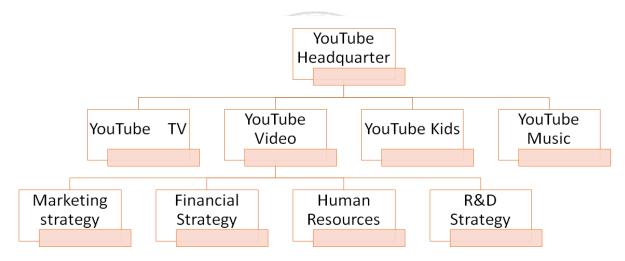
Chapter 2

Three Level Strategy

The simplest part about creating a video is deciding where to post it. For most advertisers, YouTube is an obvious option because it is currently the most popular video hosting website.

YouTube's MISSION STATEMENT

YouTube's mission statement is "to give everyone a voice and show them the world." YouTube business focuses on hosting video content on the platform. The company delivers access and sharing of this information easily and conveniently through the online sharing platform. Doing so shows its dedication to facilitating



communication and entertainment to be almost effortless and accessible. Below are the components related to the YouTube mission statement.

Figure 3: Strategic Level

2.1 YouTube's CORPORATE LEVEL STRATEGY

Throughout the 1980s and '90s, public service broadcasters and subscription-TV channels curated genres, expanded offerings. They modernized the broadcasting medium, but that was limited to reach those with a television or a cable connection. However, everything changed when YouTube posted its first video on April 23, 2005. Now, YouTube has emerged into a sophisticated turn with a premium

subscription model and live video features, and its traditional video hosting platform.

Presently, YouTube arguably the world's most popular video-sharing service.

The platform's content has grown to include originally made content, licensed content from major studios and producers, and a digital video transaction store, highlighting its importance in the industry for consumer engagement. YouTube has become the world's largest video hosting website. One of the internet's most popular search engines, second only to its parent company, Google, bought YouTube for \$1.65 billion in 2006.

Nowadays, Youtube has four business units that provide for users in different target audiences.

First is **YouTube Video**, which an American online video-sharing platform allows users to upload video, view, like or dislike, share, create playlists, comment, and subscribe to other users. YouTube offers various content, including video clips, TV show clips, music videos, short and documentary films, educational videos, and other casual content such as video blogging and short original videos. About 500 hours of video are uploaded on YouTube every day (Omnicore Agency, 2019). It has approximately 5 billion views per day.

Second is **YouTube TV**, which launched to the public on February 28, 2017—initially launching in five primary countries, including New York City, Los Angeles, Chicago, Philadelphia, and San Francisco). On April 5, 2017, the service extended live streaming programs from the five dominant broadcast networks: <u>ABC</u>, <u>CBS</u>, <u>The CW</u>, <u>Fox</u>, and <u>NBC</u>. Along with approximately 40 cable channels owned by the corporate media content originators of those networks, The Walt Disney Company, <u>CBS Corporation</u>, <u>21st Century Fox</u>, <u>NBCUniversal</u> and Turner Broadcasting System (including among others <u>Bravo</u>, <u>USA Network</u>, <u>Syfy</u>, <u>Disney Channel</u>, <u>CNN</u>, Cartoon Network, <u>E!</u>, <u>Fox Sports 1</u>, <u>Freeform</u>, <u>FX</u>, and <u>ESPN</u>). Subscribers can also receive

Showtime and <u>Fox Soccer Plus</u> as optional add-ons for an extra fee and access YouTube Premium original content.

The third is **YouTube Kids.** YouTube developed a video application platform for children and released it on February 15, 2015, for an Android and iOS mobile application. In September 2019, the app was already available in 69 countries, including Hong Kong and Macau, and one province. On August 30, 2019, YouTube started a web-based version of YouTube Kids. YouTube Kids provides a service-oriented program for children. The app filtering allows only videos appropriate viewing for children under 13, with curated selections of content and parental control features.

Last, **YouTube Music** was launched on May 22, 2018, as the music streaming platform. YouTube launched this new subscription music streaming service to compete with other services such as Spotify and Apple Music.

Based on Youtube's Mission "to give everyone a voice and show them the world." YouTube laid the groundwork and contributed to the growth and popularisation of on-demand online video streaming with its service evolving over the years. It also transformed advertising models for the media and entertainment sector. Previously, the share of advertising revenue was generated from broadcast TV. There has been a shift towards online advertising and online video advertising over the last 15 years. YouTube in 2019 generated over \$15billion in advertising revenue.

2.2 YouTube's BUSINESS LEVEL STRATEGY

The domain name "YouTube.com" was public on February 14, 2005. The video upload options were processed on April 23, 2005. After being named "Tune In, Hook Up" Chad Hurley, Steve Chen, and Jawed Karim's original idea. The first YouTube video, named 'Me at the zoo,' was uploaded on April 23, 2005, by co-founder Jawed

Karim showing him at the San Diego Zoo and currently has over 110 million views and 4 million likes.

YouTube started as an angel-funded company working from a garage office. In November 2005, Roelof Botha, a partner of the firm and former CFO of PayPal, joined the YouTube board of directors. Later, venture company 'Sequoia Capital' invested an initial \$3.5 million in November 2005 and not long after had experienced significant growth in its first few months, Sequoia and Artis Capital Management invested an additional \$8 million in April 2006.

During the beta service period, in May 2005, YouTube.com was trafficking around 30,000 viewers a day in just months. Then, six months after launch, they would be drawing well over two million viewers a day. In March 2006, the site had more than 25 million videos uploaded and generated around 20,000 uploads a day. YouTube became one of the fastest-growing sites on the internet, hosting over 65,000 new video uploads during the summer of 2006. Continuously, the site had delivered an average of 100 million video views per day in July.

In March 2010, YouTube began to provide free videos or specific content, such as the Indian Super Cricket League broadcast. The YouTube report pointed out that this is the world's first free online sports event.

On March 31, 2010, the YouTube website changed its page to a more straightforward design. The purpose is to simplify the overall interface and increase the time users spend on the site.

On March 2006, YouTube has dicided to changes the length of videos to 10 minutes. This is because YouTube found that most of the videos over this period were unauthorized TV shows or movie content, and they were only open since 2007. Users who apply for a director's board account or mass media with a partnership with YouTube can upload videos of more than 60 minutes. Since July 2010, YouTube has

loosened the video length limit from 10 minutes to 60 minutes, and mass media that has a partnership with YouTube can still upload videos longer than 60 minutes. Besides, the maximum size of a video file is 2GB if it is uploaded only by Flash, and it can be increased to 20GB if it is uploaded using Java.

On March 14, 2015, YouTube announced that it supports the upload and viewing of 360-degree videos. This means that the YouTube videos were able to be viewed from different angles. 360-degree videos can be watched by the virtual reality system Google Cardboard or other virtual reality headsets. It also supports live streaming of 360° videos with up to 4K resolution.

2.3 YouTube's FUNCTIONAL LEVEL STRATEGY

2.3.1 Marketing strategy - 4Ps

a.) Product

Video-sharing platform

The main product of YouTube is an online video-sharing platform. The platform allows anyone to watch videos uploaded to the platform; however, only users who registered to the platform are allowed to upload and comment, like on the website.

Video formats accepted by YouTube are mainly MPEV-PS, FLV, MP4, QuickTime File Format, and AVI. The 3GP and WebM files are allowed for uploads from mobile phones. YouTube also has other exciting features within the platform, e.g., Live streaming, YouTube Shorts, 3D videos, 360-degree videos, etc.

YouTube Premium

YouTube Premium, also known as YouTube Red, is a paid subscription service by YouTube. It offers no advertisement streaming on youtube, access to the

exclusive content, background and offline video playback on mobile devices, and "all-access" service for Google Play Music. As of November 2016, the service has 1.5 million subscribers, with a further million on a free-trial basis.

YouTube Go

YouTube Go is an Android app to help make YouTube easier to access on mobile devices. The difference from the YouTube main app is that it allows videos to be downloaded and shared with other users and allows users to preview videos and share downloaded videos through Bluetooth.

b.) Price

YouTube corporates both free and paid services within the platform, a very effective pricing strategy for YouTube. The important income source of YouTube is advertisement sales.

•

Video-sharing platform

Anyone can watch videos on YouTube's platform for 'free,' which has been one of the biggest drivers behind the success of YouTube. Along with some other features of YouTube are also free such as streaming and youtube shorts.

Paid Subscriptions

'YouTube Premium' costs \$11.99 per month. Subscribers can also add an extra \$6 **per month** to add up to 5 more family members to the subscription.

Advertisement sale

YouTube uses the progressive pricing strategy on their advertisement sales, and this means an advertiser is charged per the number of views. The average cost of an advertisement is about \$7.60 per 100 views. YouTube charges advertisers only when people watch their ads or engage with them, such as clicking on a call-to-action overlay.

c.) Place

YouTube is available on smart devices and the supporting internet browsers, including Internet Explorer, Chrome, and Safari 8. It is accessible worldwide through the internet in over 100 countries, available in 80 different languages (YouTube, 2020). However, it is banned in some countries: China, Denmark, Eritrea, Iran, North Korea, Sudan, South Sudan, Tajikistan, and Turkmenistan.

d.) Promotion

Word of Mouth

eWOM is the biggest driver of YouTube growth. Approximately 500 hours of videos are uploaded on it every minute, have about 5 billion views per day, and millions of people watch and share them.

Social Engagement

YouTube creates annual events to interact with the users, e.g., YouTube Rewind, a recap of what viral each year, and the April Fools prank.

• Advertisement Sales Promotion

YouTube uses sales promotion techniques to convince advertisers to use its platform for digital marketing. YouTube often offers \$100 free credit when they spend \$50 on video ads.

Partnerships

YouTube has done advertisement and marketing promotion in partnership with companies to improve visibility. YouTube got into an agreement with the BBC with other agreements being reached with CBS, MGM, and LionsGate Entertainment, where the companies were allowed to post TV episodes and full-length films on YouTube. Youtube also included partnerships with video creators. It allows creators to share the revenues collected by YouTube from uploading videos to encourage video creators to upload more quality videos to attract more traffic.

2.3.2 Financial strategy

a.)YouTube partner program

YouTube's ad-supported revenue

According to YouTube's most powerful content platform for any creators, they had created the two-ads feature which plays before the video content begins and starts its subscriber-based model which are Youtube Premium, Paid TV service, and music Premium service.

In 2019, according to Alphabet, YouTube ad revenue was \$15.14 billion, which is more than 2018, around \$11.15 billion.

YouTube's Cost Per Mille(CPM)

This program measures the cost of creators had earned in every 1000 ad impressions before youtube took their revenue share. The higher the CPM, the more creators earn money from that advertising video. The more advertisers pay for advertising on the video; thus, it is a good indicator to show how valuable the creator's channel and its videos are.

YouTube's Revenue Per Mille(RPM)

This program, including the total number of viewing in the video, which includes videos weren't monetized. Moreover, RPM was designed to show creators their total revenue from advertising and other features after cutting revenue from youtube. Thus, creators could know how the payment they had created and how much they had missed out, so creators will utilize this information to develop and change their future videos that ensure those videos are monetized.

They said that RPM is much more useful for creators to figure out their revenue than the CPM program.

YouTube's Premium revenue

Users paid a subscription fee to YouTube views other users' videos without advertising playing before the content video began.

In 2019, this section created \$17 billion of revenue that increased from \$14 billion and \$11 billion in 2018 and 2017, respectively.

Channel memberships

Users paid a subscription fee directly to the creator's content channel.

Super Chat and Super Stickers

Superfans of the creator's channel paid fees for using stickers features in chat streams when that channel is live streaming.

b.) Creating sponsored content

The key of this sponsored content is that the sponsors or brand owner will be willing to invest in the creator's content to appeal to and receive exposure from the creator channel's audiences.

c.) Affiliate Marketing

YouTube will earn money from this program by streaming revenue from creators channel when they were pushing products directly or using the channel to promote creator's affiliate marketing links

2.3.3 **Human Resources**

YouTube is a user-based website where any registered user can upload videos on the platform. Without these users, who are called 'creators,' continually creating content on YouTube, it will not be as successful as today. Therefore, YouTube's

strategy to encourage creators to keep making content is called the 'Monetization system,' which promises to pay creators according to the number of views on their published videos.

YouTube will pay the creators 68% of the AdSense revenue. Thus, for every \$100 an advertiser pays, Youtube will pay \$68 to the publisher for ownership of intellectual property. As of 2020, there are 50 million users creating content shared to date. YouTube has spent \$8.5 billion on their "content acquisition" in 2019.

However, there are some certain rules and regulations for videos that creators have to strictly follow for their videos to get monetized; for example, according to 'copyright guidelines', creators can't feature copyrighted music into their video for more than 15 seconds (YouTube help, 2020). Several rules had been set to maintain composure on YouTube to avoid being wrongful against the law. Although it creates a better environment for the platform, it also can be upsetting to creators as their creativity is now limited and possibly makes less income. Earlier in 2020, YouTube paid \$136 million to the FTC and \$34 million to New York for allegedly violating the Children's Online Privacy Protection Act (COPPA) Rule. As a result, content 'made for kids' or 'features kids' will be restricted from targeted ads and will lose access to comments and some other community features, which means reduced revenue for these types of content creators.

2.3.4 Research and Development strategy

a.) Devices statistic

According to YouTube data, 70% of YouTube view times come from mobile devices.

b.) Content statistic

Youtube reported data estimated that 500 hours of content videos were uploaded to the platform every minute. It can say that around 30000 hours per hour, 360000 hours daily, 2.5 million a week, 11 million a month, and 131 million hours of uploaded content videos in a year. For most-watched videos, the first video that reached 1 billion views was "November Rain," additionally, the first video that got 2 billion views was "Gangnam Style," and "Despacito" had become the first video that reached 3 to 6 billion views.

Moreover, the most-watched videos in one day were getting larger until now, and this could state that there are plenty of new content videos on Youtube platforms every day. Thus, these statistics showed that Youtube platforms are suitable for updating new content videos every minute within one day. These databases could help Youtube analyze their platform by updating the revenue streams program and new technologies for the better quality of content videos and decreasing non-compliant, copyright infringement, offensive content, spam, or anything that is forbidden by the terms of service.

Most-searched terms and comments on Youtube could be the most crucial functions as a search engine from users' resources to predict future content uploaded and viewed trends. It can help Youtube to consider the user data, which is the unique potential of youtube. In conclusion, YouTube data is utilized to understand the current trends, lifestyles, etc. It was beneficial for youtube to decide to develop their performances and services.

c.) Advertisement statistic

Regarding Google data, 70% of shoppers said that they are learning about their exciting products from brand channels on YouTube. The study found that Youtube

mobile advertisements with 62% of the attention rate and 25% of the skip rate were eye-catching. Moreover, Non-skippable advertisements get 83% of an attention rate.

In 2018, Youtube used 'ad pods' that played before content videos began, but these features were not in all videos, so this may be the strategy that drives users to pay in Youtube Premium. Furthermore, Youtube ads effectively create and increase brand awareness and brand consideration; thus, this is the benefits data from Youtube to ensure any brands create and pay advertisements on Youtube, which they got higher revenue target audiences and increase more customers.

d.) Best timing statistic

Considering the proper time and date posting, these are the significant factors for creators to reach more video views. They can track the videos' performance record about content videos' feedback to help creators gain insight and improve their content to have an effective marketing strategy from customers or audiences.

Chapter 3

Strategic Map

Strategic Map of YouTube

When YouTube first launched in February 2005, it wasn't designed to make any profit. In October 2006, YouTube was acquired by Google(Alphabet) for US\$1.65 billion, and since then, the main Google priority is to make YouTube profitable. Today, YouTube has become the most successful, powerful, and influential online video sharing service platform in the current industry. It has tens of millions of video clips with approximately 30 million visitors per day. The number seems to grow every year. It is a significant opportunity, more than ever, for YouTube to be able to make a profit to sustain its business in the long term.

The main goal of the YouTube company is to **increase revenues**. YouTube is a platform website, which means their potential clients are both users and partners (marketers). Therefore to succeed in this goal, YouTube needs support factors from both users and partners.

3.1 YouTube Goal: Increase Revenues

3.1.1 **Youtube value**: When users are satisfied with youtube services, such as contents, channels, creators, premium programs, advertisements, etc., they will be aware that YouTube is a valuable and credible platform that can serve services or help them earn more money from their channels. Thus, YouTube's brand position will be higher than other brands and more credible to users than the others.

- 3.1.2 **User Experiences**: Youtube is a platform service provider. The main revenue of Youtube is from advertisement sales. The key to YouTube success is user traffic on the website, and the more users-traffic will attract advertisers to advertise on the platform. Youtube also has a paid subscription model as another way to earn income, and users paid YouTube to be members and get the experiences from watching videos on the YouTube website without advertisement and from other services such as premium contents and access to youtube music. Therefore, user satisfaction is an important factor to maintain/increase user-traffic on youtube.
 - a. <u>Website</u>: an online platform that allows people to watch and upload videos and comment on them.
 - b. <u>Free video sharing-platform</u>: The website allows everyone to use their platform to watch videos for free, to upload and comment only for members who registered with the website, which is for free as well.
 - c. <u>Cloud streaming</u>: the new technology provides every type of video content through the internet. Users, such as creators, subscribers, advertisers, etc., are served by this service in any place around the world.
- 3.1.3 **Users**: Users are an essential factor for YouTube. Increasing new users and maintaining the satisfaction of old users can increase the probability of purchased YouTube paid products: YouTube Premium, YouTube TV, and a possible increase in traffic on the website. It is essential to factor in attracting advertisers to advertise on YouTube.
 - a. <u>Content</u>: Videos that are uploaded on YouTube are considered as content on the platforms. Contents on Youtube are versatile. The more variety of content youtube has, the more likely users of YouTube are of various ages, gender, and interests, thus attracting advertisers of multiple brands/products.

- b. <u>Content Creators</u>: Persons who created the video content and uploaded it on their channel through the YouTube platform. Youtube relies on content creators to create valuable content to increase more user traffic.
- c. <u>Creators revenue</u>: YouTube has a system to reward content creators for creating content called 'Monetization system.' To earn money from YouTube, the creator's channel must have a high number of audiences (viewers) and subscribers. YouTube also developed a system to calculate creators' revenue in order to encourage creators to create quality content.
- d. <u>Viral</u>: If contents are fascinating to other users, it will be shared throughout the internet. This way, creators can be well-known and get more subscribers and fans.
- e. <u>Subscribers</u>: The people or channels that are subscribed to the creator channel. So whenever they upload a new video, subscribers will be able to see it in their feeds. This makes subscribers more likely to watch the videos uploaded by creators. People who like the content creators can subscribe to follow-up and date if creators launch the new video.
- f. Effective youtube algorithm: YouTube develops an algorithm to expose content from the creator to new viewers. Youtube will recommend the same type of content to a viewer to analyze from their past viewed videos, which increases the possibility of gaining new subscribers or going viral.
- 3.1.4 **Advertisement Partners**: The main partners of YouTube are advertising industry partners who pay to YouTube for showing advertisements on the YouTube website. The most income of youtube comes from advertisement sales; thus, youtube needs to provide the most efficient channel to their partners.

- a. <u>Increase in brand awareness</u>: Most crucial goal of partners when advertised on YouTube is to increase their brand awareness. YouTube is aware that its platform has the potential for its partners to achieve the goal, using the user traffic on the platform.
- b. <u>More audiences</u>: the audiences of YouTube advertising come from the users who use the YouTube platform. Youtube is attractive for advertisers because of its large amount of user traffic.
- c. <u>Effective youtube algorithm</u>: YouTube develops an algorithm to analyze and distribute advertisements to the type of content suitable for the advertiser's target customer.
- d. <u>Cheaper Price</u>: Youtube offers lower prices than regular TV commercial deals.
- e. <u>Promotion</u>: YouTube offers \$100 free credit when they spend \$50 on video ads.
- 3.1.5 **Employees**: Employee performance is critical to the overall success of the company. Each department will support each other to complete the tasks.
 - a. <u>Marketing & Sales Department</u>: The department creates a strategy to attract new customers to use their platform.
 - b. <u>Customer acquisition</u>: New users on free platforms will possibly become the member users in the future.
 - c. Free trial 1 month of YouTube Premium: Before customers decide to buy YouTube products, Youtube allows customers to use the website as a premium member for free in 1 month.
 - d. Research and Development: Responsible for creating new or improved technology that can give a competitive advantage to YouTube, whether to attract new advertisement partners or customer satisfaction.

- e. <u>Technology</u>: Youtube developed their platform to be able to support new technologies as well as increase enjoyment of users who use the platform.
- f. Free video sharing platform: Youtube is able to accept a variety of video formats including MPEV-PS, FLV, MP4, QuickTime File Format and AVI. The 3GP and WebM files are allowed for uploads from mobile phones. YouTube also add new interesting features within platform; eg. Live streaming, YouTube Shorts, 3D videos, 360-degree videos etc.
- g. <u>Effective youtube algorithm</u>: YouTube website is a famous platform and also the 2nd search engine in the world. To increase the effectiveness for the platform for both at=dvertisers and users, Youtube constantly improves their algorithm mechanism.
- h. <u>Salary</u>: the factors that attract employees come to work with the company and develop the company's services with an affordable salary.

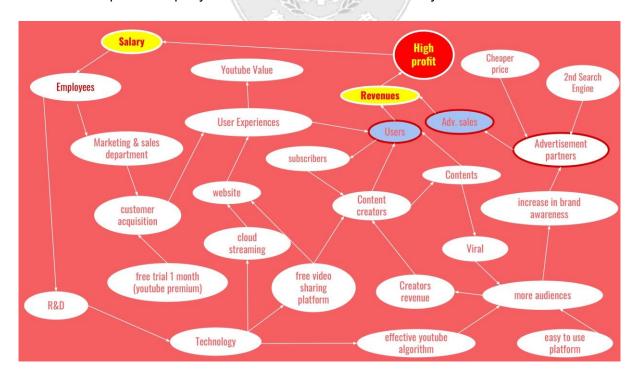


Figure 4: Strategic Map

Chapter 4

Porter's Five Forces Model

4.1 Threat of New Entry - Low

4.1 Threat of New Entry - Low

Youtube has become the largest video sharing platform on the internet in a very short time period. However, such the hosting videos website is not an outlandish technology on the internet; thus, the barriers to entry in the market are relatively low. Besides, due to the lack of restriction on content that can be posted on the platform, some countries have banned YouTube for hosting offensive video content. As a result, it provides an open field for new potential competitors in that particular region. On the other hand, the proxy server and VPN technology's existence allows the internet user to penetrate the ban. As of now, YouTube has the most number of videos and a variety of contents, so the threat of new rivals is low.

- The Economic of Scale: The economies of scale are quite challenging to achieve in the YouTube industry. This means it is easier for those with large capacitates to have a cost advantage and make new entrants more costly. The economy of scale in YouTube's industry makes the threats of new entrants a weaker force.
- The product differentiation: The value of differentiated products is very high in the industry. Consumers are looking for differentiated products rather than standardized products. There is a strong presence of advertising and customer services emphasis as well. Therefore the threat of new entrants is considered a weak force within this industry.

- The capital requirements: It is difficult for new entrants to set up businesses as high expenditures need to be set up. And because of Research and Development costs, capital expenditure is also high. Resulting in the capital requirements are presenting the threat of new entrants as a weaker force.
- The access to distribution: The business can easily set up their distribution
 channels for this industry by gaining internet accessibility. If accessing
 distribution networks is easy for new entrants to make the threat of new
 entrants a strong force within this industry.
- The government policies: The strict licensing and legal requirements that need to be fulfilled vary in different countries. Therefore, presenting the threat of new entrants as a weak force.

4.2 Bargaining Power of Suppliers - Low

Google is Youtube's supplier which provides technology and other facilities, thus, Youtube became a significant power in the supply chain of Google. Moreover, Youtube uses creative technology from many companies and utilizes Google databases for analysis users' information such as uploaded data or view history. For example, Youtube uses Trueview for skipping advertising video for 5 seconds, and LIGHTTPD to increase high performance for content creators. Therefore, the power of suppliers is weak or low because their services or products depend on Youtube's need.

- The number of suppliers: The suppliers have various comparisons and less price control.
- The similar standards products: Due to low switching costs, thus Youtube have more choices to select or change suppliers.

- The suppliers don't contend with other products: With the only one
 providing suppliers for Youtube, the bargain power is strong due to no
 substitutes products from others.
- The suppliers don't provide a credible threat for future integration
- YouTube is a significant customer for its suppliers: they have no power to increase cost of services, thus they have offered affordable and reasonable prices for Youtube.

4.3 Bargaining Power of Buyers - Low

- Low producers: the number of suppliers in the industry in which Youtube operates is a lot higher than the number of companies producing the products.

 This means the buyers have a less product from other company to choose from, and therefore, do not have much power to bagain for lower prices.

 Consequently, it makes the bargaining power of buyers a weaker force within the industry.
- High product differentiation: The product differentiation within the industry is
 high; tharefore, the buyers have not other alternative company that producing
 a same type of product. This difficulty in switching makes the bargaining power
 of buyers a weaker force within the industry.
- High-quality products: The products' quality is essential to the buyers to
 make purchases frequently. For this reason, the buyers in the industry are less
 price sensitive. Therefore, we conclude that the bargaining power of buyers a
 weaker force within the industry.
- No significant threat: There is no significant threat to the buyers to integrate backward. Therefore, it makes the bargaining threat of buyers a weaker force within the industry.

4.4 Threat of Substitute Products or Services - Low

There are very few substitutes available for this product produced in the industry in which Youtube operates. Low profit-earning industries also have very few available reserves. It implies that there is no ceiling on the maximum profit that firms can earn in the industry in which Youtube operates. All of the factors contributed to the threat of substitute products as a weaker force within the industry.

The very few substitutes that are of high quality are available, but the prices are much higher. Relatively, companies producing within the industry in which Youtube operates sell at a lower price than replacements, with adequate quality. It means that buyers are less likely to switch to substitute products. Therefore, we conclude that the threat of substitute products is weak within the industry.

4.5 Competitive Rivalry - High

YouTube has some competitors within the industry, for example, Vimeo, YouKu, Dwango, Dailymotion, etc. So far, YouTube still manages to be the largest platform compared to its rivals combined. YouTube has a competitive advantage over Vimeo on offering free access to its users. Another competitor being Dailymotion, which started around the same year as youtube. However, it has a lack of originality to be able to compete with YouTube.

- Youtube has a few competitors in the industry and is large in size, and this
 means that competitors in the industry will not be able to make a move without
 being noticed. Therefore, the rivalry among existing firms is a weaker force in
 the industry.
- There's a few competitors with a large market share, so this means there's a
 possibility of engagement in competitive actions to try to become market
 leaders. For this reason, the rivalry among existing firms is a stronger force.

- The industry that YouTube is in is growing every year and is expected to continue growing. **Positive Industry growth** means that competitors are less likely to engage in competitive actions due to more market share and no need to usurp from one another. Therefore, we assume that the rivalry among existing firms is a **weaker force** within the industry.
- The industry in which Youtube operates has high fixed costs. This makes the
 companies within the industry need to be productive to full capacity.
 Companies have to come up with strategies to boost sales when the demand
 is down. In conclusion, the rivalry among existing firms is a stronger force
 within the industry.
- The products produced are highly differentiated. As a result, it is harder for competitors to take the customers from each other because they are unique.
 For this reason, makes the rivalry among existing firms a weaker force within the industry.
- The production within the industry requires a large capacity. This can lead to overproduction. Therefore, the rivalry among existing firms is a stronger force within the industry.
- Due to the high investment required to operate, the exit barriers within the industry are exceptionally high. In addition, the requirement for government regulations and restrictions makes firms within the industry unwilling to leave the business while the profits are low. We conclude that the rivalry among existing firms is a stronger force within the industry.
- The strategies of each company within the industry are diverse. It can result in competing with each other in terms of strategy, which makes the rivalry among existing firms a strong force.



Chapter 5

Strategic Group Analysis

Strategic Group Analysis is to look at other companies' positions in the competitive environment and the competitive dynamics of an industry. It benefits from defining the competitors and evaluating the strategies of these competitors. This can help assess strategic dynamics and shifts in the industry to determine current and potential strategic movements in the market. However, it cannot tell competitor goals; thus, strategies are often unclear, and choosing the wrong dimensions will not differentiate groups into useful categories.

In this strategic group analysis, we discussed and found some online sharing platforms in both premium and non-premium for users: YouTube, Vimeo, Dailymotion, Facebook, Instagram, Spotify, Twitch, and Netflix, HBO, and Disney+. Moreover, the two variables that we choose to analyze this strategic group are content and premium platforms.

Strategic Group Mapping

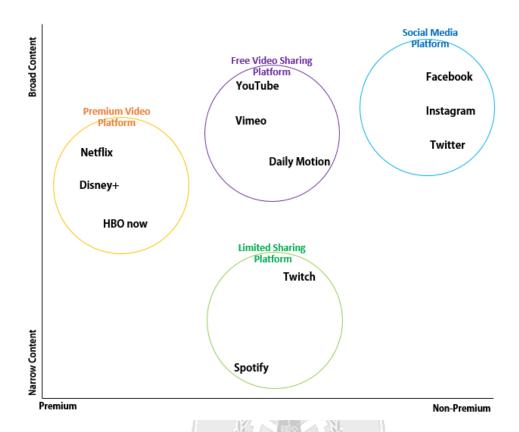


Figure 5: YouTube's strategic group mapping

Group 1: Limited Sharing Platform (Spotify and Twitch)

Company	Content Accessibility	Exclusiveness of Content*	Content Categories	Language Available
Spotify	Free/ Paid subscription	Low	1	20
Twitch	Free/ Paid subscription	Low	13	22

Table 2: Number of Content and Language of Limited Sharing Cluster

Group 2: Social Media Video (Facebook, Instagram, Twitter)

		125 A 3 to A 2 N		
Company	Content	Exclusiveness of	Content	Language
	Accessibility	Content	Categories	Available
Facebook	Free	Low	Unlimited	111
Instagram	Free	Low	Unlimited	36
Twitter	Free	Low	Unlimited	33

Table 3: Number of Content and Language of Social Media Video Cluster

Group 3: Premium Video Platform (Netflix, HBO Now, Disney+)

Company	Content Accessibility	Exclusiveness of Content	Content Categories	Language Available
	Accessibility	Content	Categories	Available
Netflix	Paid subscription	Medium and	14	20
		Exclusive		

A Multivariate Heuristic Model for Fuzzy Time Series Forecasting

HBO Now	Paid subscription	Medium and Exclusive	8	2
Disney+	Paid subscription	Medium and Exclusive	11	16

Table 4: Number of Content and Language of Premium Video Platform Cluster



Group 4: Free Video Sharing Platform (YouTube, Vimeo, Dailymotion)

Company	Content Accessibility	Exclusiveness of Content	Content Categories	Language Available
YouTube	Free/ Paid subscription	Low/ Exclusive	15	76
Vimeo	Free/ Paid subscription	Low/ Exclusive	16	7
Dailymotion	Free	Low	5	25

Table 5: Number of Content and Language of Free Video Sharing Platform Cluster *Exclusiveness of Content: Content is exclusively available only on the specific platform.

5.1: Limited Sharing Platform (Spotify and Twitch)

5.1.1 International competition of Cluster: Low

Spotify provides recorded music and podcasts from record companies and media companies subject to digital copyright restrictions, including more than 60 million songs. As a freemium service, essential functions are provided free and unrestricted through advertisements, while other functions (for example, offline listening and ad-free listening) are provided through subscriptions. The users can search for music by artist, album or genre, and create, edit and share playlists. Spotify operates under a freemium business model (essential services are free, while other features are provided through paid subscriptions). Spotify revenue comes from selling premium streaming subscriptions to users and selling advertising placements to third

parties. As of November 2018, The Spotify subscription program offered in two types, all offering unlimited listening time, are:

Туре	Remove ads	Mobile listening	Sound quality	Listen offline	Spotify Connect
Spotify Free	No	Limited (shuffle-onl y mode)	Up to 160 kbit/s	No	Limited (Spotify Connect speaker with new SDK)
Spotify Premium	Yes	Yes	Up to 320 kbit/s	Yes	Yes

Table 6: Differentiation between two types of Spotify Subscription

Twitch is a live-streaming platform service that initially focuses on video gaming live-stream, for example, real-time broadcasting of esports competition, game-related announcement, general gameplay, and more. Later, the content on Twitch has expanded to music broadcasts, creative content, and, more recently, "in real life" streams. The content on the website can be viewed either live or via video on demand. Twitch Prime is a premium membership for Twitch users, which comes bundled with Amazon Prime and Prime Video subscriptions. Twitch Prime members receive free games, in-game content, free subscriptions to their favorite channels, and more.

Twitch had tried to address music copyright issues when they launched The Twitch Music Library in 2015, but it was shut down last year without explanation. Spotify has paid \$9.76 billion in royalties to artists, music record companies, and distributors since 2006. Now, some of Twitch's music partners had already been catering to creators by publishing their free-to-use music as Spotify playlists.

5.1.2 **Mobility Barriers:**

The mobility barrier of this cluster is high. Spotify and Twitch are limited sharing platforms. Spotify primarily focuses on the music field, and Twitch primarily focuses on video game live streaming. If they move themselves to other clusters like the premium video platform, they need to broaden more areas. Relying on their original single domain is entirely unable to compete in the premium video platform market. Furthermore, if they move themselves to the free video-sharing platform is a very terrible idea because they rely on their premium system to earn profits.

5.2 Social Media Video (Facebook, Instagram, Twitter)

5.2.1 International competition of Cluster: High

The competition in Social Media Video platforms is high. Linked Research, 2014 indicated that 81% of small to medium-sized businesses (SMEs) alone used social media for marketing purposes, including video content and video advertisement to attract more audiences who generally use social media platforms. Moreover, Using social media by general users increases from 7 percent to 65 percent from 2005 to 2015, and it rapidly becomes undeniable that competition on social media is at an all-time high.

However, in terms of video creators' revenues, they are different. For Facebook, there are two ways that Facebook pays for creators. First is the number of views (\$264 for every million video views) and from advertisement during the video (average, \$0.97 per click and \$7.19 per 1000 impressions). In contrast, Twitter will pay the creators from videos with its pre-roll ads only. Furthermore, Instagram has not paid a dime for IGTV content since its launch.

5.2.2 Mobility Barriers:

The mobility barriers of these social media are high, Facebook Instagram and Twitter are platforms to share data, news, photos or videos to your followers and friends. If they move themselves to other clusters like the Free Video Sharing platform they will lose their signature of posting everything on users' timeline. And if they move themselves to a premium video platform is also impossible because in general, all the users can use the platforms for free and if the users have to pay some money to be premium users, they won't be satisfied and can cause them to change to another platform. So It is not a good choice for them at all.

5.3 Premium Video Platform (Netflix, HBO Now, Disney+)

5.3.1 International competition of Cluster : High

The competition in Premium Video Platform is high. According to the competitors in Premium Video, customers have a chance in various options to select the worth platforms which serve their needs. For the Premium Video platform, users have to pay a subscription fee for services. Moreover, the contents, such as movies, television shows, or programs, are the most significant factors to compete with their competitors. However, each platform's content is quite similar; therefore, they have to provide better quality and various types of videos and content to serve customers. Regarding one of the crucial factors of Premium Video Platform, the subscription fee is the factor that can persuade customers to select their platforms. Thus, the more quality in contents and the less subscription fee, the more popularity and customers.

Furthermore, the subscription fee of Disney+ is \$6.99 per month or \$69.99 per year with 4K Ultra HD in Dolby Vision and HDR10. Netflix's Premium Plan subscription fee is \$15.99 per month with HD or 4K Ultra HD. HBO Now's subscription fee is \$15 per month with Ultra HD. Thus, they have to provide more useful content and services to be impacted by customers.

5.3.2 **Mobility Barriers:**

The mobility barriers of these premium videos are medium. For premium video, customers are willing to pay a subscription fee for the better quality and services expected to be served with the platform's excellent services. Suppose they want to shift themselves to Free Sharing Video. In that case, customers will be satisfied due to the better quality of contents and services than other free sharing video platforms, like YouTube, Vimeo, and Dailymotion. However, they will lose numerous subscription fees for providers' aspects, and their advantages will decrease. Furthermore, if they want to move themselves to Limited Sharing platforms, it would be duplicated in their services and wouldn't improve their businesses' benefits. On the other hand, if they want to convert themselves to Social Media platforms, it is quite impossible because, initially, their services and contents are premium video contents, television shows, and movies; thus, their services are not free like Social Media platforms.

5.4 Free Video Sharing Platform (YouTube, Vimeo, Dailymotion)

5.4.1 International competition of Cluster: Medium

The competition between free video-sharing platforms is considered a medium due to the content uploaded to platforms. These free platforms allow users to reach their content for free with or without the registered account. However, to upload videos on the platform, users need to register an account. Thus, The content on this cluster's platform is uploaded by individuals, and the content is unique. Therefore, users who watch the video go to the specific platform for each platform's unique content. However, as they provide free services, users can easily switch to use services from other competitors without any barrier.

5.4.2 Mobility Barriers:

For this cluster, mobility barriers are at medium since the user base on these platforms is various. The platform can offer premium quality content with subscription fees and sell to a portion of its original user. However, to attract new users to join their premium content is difficult since the other competitors in the premium cluster are powerful. On the other hand, moving to the limited cluster is considered an unwise decision due to their user base being attracted to the platform with the content's wide variety and uniqueness. The players in the limited cluster are known for their specialty. Therefore, moving to the limited cluster has a high possibility to satisfy their user base and unable to convince the new users due to disadvantages in their specialty.

Chapter 6

Resource and Capability Analysis

A Resources and Capabilities analysis is an analysis of the potential of a company. It is a powerful tool for sizing up a company's competitive assets and determining whether the assets can support a sustainable competitive advantage over market rivals. The main finding is to identify the owned or controlled resource by a company that none other has and use as a company's competitive asset. Resource and capability analysis highlights the tools and internal opportunities a company could use for maximizing its outcome.

For YouTube, the most standout resource is its technology. The parent company of YouTube is Alphabet' a leading company in technology; therefore, YouTube gains cost reduction, which is a massive advantage over competitors within the same industry. This analysis will highlight other company resources of YouTube into two categories including; tangible resource and intangible resource.

6.1 **Resources**

Below are analysis of tangible and intangible resources of Youtube, including financial and physical resources, technology, reputation, patents, entertainment and culture, and human resources.

6.1.1 **Tangible resource**

Financial

Income

Youtube's video-sharing platform has its core income from online advertisement channel services. As mentioned, Youtube is one of the subsidiaries company under 'Alphabet' who is the leading player in the industry. Youtube has been generating the most amount of income for its parent company. It is considered a fast-growing company and has seen an increase in revenue at a considerably fast rate. YouTube ads generated \$15.15 billion in revenue in fiscal 2019, compared with \$11.16 billion in 2018; this does not include YouTube's non-advertising revenue.

For YouTube's non-advertising revenue, the Youtube premium subscription was \$3 billion in 2019. YouTube has seen enormous growth, according to the newly released numbers. In fiscal 2017, the platform generated \$8.15 billion in ad revenue, followed by \$11.15 billion in fiscal 2018. In other words, YouTube's ad revenue has nearly doubled over the past two years. Overall, Alphabet hit \$161.8 billion in revenue in fiscal 2019; therefore, Youtube alone generates 24.5% of its parent's revenue.

Physical

• Youtube headquarter

Youtube's headquarters is located at 901 Cherry Avenue San Bruno, California, United States. In January 2016, YouTube purchased an office park for \$215 million. The complex has 51,468 square meters (554,000 square feet) of space and can house up to 2,800 employees. The building corporate innovative design strategies, for example, raised flooring, displacement ventilation, operable windows, and extensive daylighting, all justified through rigorous cost-benefit analyses. Due to its unique advanced integration of building systems, Pacific Gas and Electric has recognized the building as the second-most energy-efficient office building in the state.

The facilities provide Youtube employees who work here. The departments are including research and development, marketing, and customer relation. The BrandLab is a place for customers, executives and their advertising or creative agencies charged with building brands and growing revenue, to generate ideas on how to create better connections with people through YouTube. Google built the Google BrandLab to assist its clients as a digital partner to help more brands utilize YouTube's full potential. The BrandLab's physical space was created in September of 2012, where YouTube employees can collaborate with brands and agencies to tell their brand's stories.

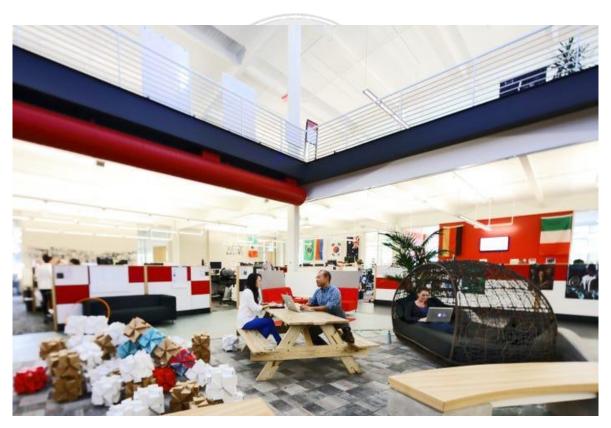


Figure 6: Atmosphere inside the Youtube's headquarters at San Bruno, California

Youtube Space

YouTube Space is a physical location built by Youtube for content creators.

Content creators use it to produce content as well as learn about creating content.

YouTube Space provides content creators facilities to produce content for their YouTube channels. YouTube Space is entirely free to use, and YouTube provides equipment, studio space, post-production facilities, training, and workshops. Content creators, however, must hire their film crew if they wish to do so.

The first opened YouTube Space was in London, Kings Cross the year 2012. The facility holds three soundproof shooting sets, editing equipment, a store for creators to sell their merchandise, and lastly, a community area with a coffee stand. There are currently ten YouTube Spaces worldwide, including London, Los Angeles, Tokyo, New York, São Paulo, Rio de Janeiro, Berlin, Paris, Mumbai, and Dubai.



Figure 7: One of the sets inside YouTube space in London

6.1.2 Intangible resource

<u>Technology</u>

Technology Know-How

Alphabet's R&D department is well-established and is continuously searching for new ideas and technologies to transform the current services and increase its

competitive advantage. (anon, n.d.) Alphabet is shown to be a leading company in the information technology industry. It has brought several market-leading products, from the smartest search engine to the Adsense browser and advertising platform. Alphabet invests a significant amount of time, money, and effort to continually advance its technological abilities centered on increasing internet security, faster download, innovations that generate more revenues, and customer satisfaction. It also focuses on laaS (Infrastructure as Service) to support enterprises in implementing cloud computing systems in their organizations. Youtube profited from a reduction in operational costs from technological development provided by Alphabet, and the use of PaaS (Platform as a Service) has boosted operational efficiency. (Rodrigo, 2016).

Youtube API

The YouTube Application Programming Interface (YouTube API) grants the ability to reclaim feeds related to videos, users, and playlists. It also provides the capability to manage those feeds, for example, creating new playlists, adding videos to favorites, and sending messages. YouTube is well-known for its user-friendly and easy to use website interface. YouTube's website design is focused on enhancing user experiences from all the three stakeholders; user, content creators, and advertisers.

The API allows developers to access video statistics and YouTube channel data. Google describes the YouTube API Resources as "APIs and Tools that let you bring the YouTube experience to your webpage, application or device." The Players and Player APIs section identifies methods to let your users watch videos in your application and control the playback experience. You can use player parameters to customize the player's appearance and use Player APIs to control the player from

55

your web page or application directly. A significant benefit of YouTube's API's is that 3rd party companies can manage pay per click linked with advertising for the videos. Therefore, it allows the video creators to receive money for the effort they have put into their videos. YouTube APIs also allow stronger integration of the video service into a 3rd party website.

Reputation

Brand Name

Google obtained YouTube for US\$1.6 billion in 2006. Analytics estimate YouTube to be worth up to **US\$**170 **billion** in 2020, delivering Google a 100x return in under 15 years. YouTube ranked the 5th largest digital ad platform with a 6 percent share, after Google Search, Facebook, Google Display, and Instagram.

- YouTube carries value to its three key stakeholders:

Users: free, targeted, and relevant video content in various categories, including entertainment, educational, tutorial, news, et cetera.

Creators: monetize video content on the platform with the broadest reach. Allows creators to focus on delivering quality content and outsource hosting and marketing costs to YouTube.

Advertisers: YouTube is the second-largest social media platform in the world with over 2 billion monthly active users. Youtube can create brand impacts and targeted reach across a global audience. YouTube eventually aims for global viewership and monetizes by selling ads to businesses.

Rankings where listed	Year	Position
Best Global Brands	2020	30

BrandFinance Global 500	2020	26
BrandZ Top 100 Most Valuable Global Brands	2020	37
The Top Most Loved Brands	2020	10

Table 7: YouTube's ranking in the year 2020

Company culture

YouTube is one of the top companies where people want to work. Alphabet, the parent company, ranked number 1st out of 50 companies people want to work with by LinkedIn. YouTube Company Culture is described as 'Intergalactic Explorers'. 'Intergalactic Explorers' refers to creative, social and innovative, and energetic. A competitive and dynamic environment that emphasizes personal achievement is an ideal culture for those who are proactive and agile in their thinking. YouTube is an exceptionally team-oriented, creative workplace where every employee has a voice to make the company's choices. Youtube works in small teams to design, develop, and deliver key features and products in concise time frames.

Youtube trademark

Logo



Figure 8: Youtube's standard logo

YouTube's logo is a rounded red square with a white triangle in the middle of the square; this part is called the 'YouTube icon.' Beside the youtube-icon is the word

'YouTube' labeled on the right side. The colors of youtube logos are YouTube Red, White, and Almost black.

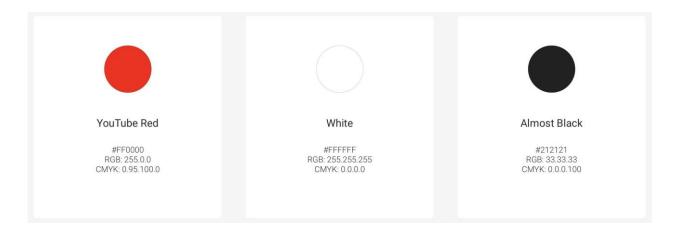


Figure 9: Youtube's color code

The YouTube logo has a flexible appliance. There are two versions of the YouTube logo, the full-color Logo and almost black and white, but the middle triangle should always be white. Use the 'almost black full-color' Logo on a light background and use the 'white full-color' Logo on a dark background. If a background color makes the full-color Logo hard to see, you should use a monochrome Logo instead. The triangle mark works as a call to action, and a shorter version of the Logo is the 'youtube icon'. Youtube allows their partners and advertisers to use the Youtube name, Logo and Icon to promote their YouTube channel or content as long as they restrict to the usage guidelines found on YouTube's official website.





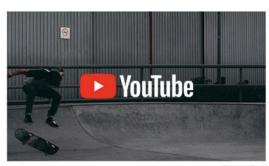




Figure 10: Youtube's full-color logo(left) and monochrome logo(right) in appliances

6.1.3 Human Resources

• Employees

As of 2019, YouTube has 1,121 employees based at YouTube headquarters and has. Alphabet, its parent, has 85,050 employees and ranked 1st by tech companies that people wanted to work with the most in 2019. The company never retains an employee based on paper qualification but preferably on the merit of services he has provided. The organizational structure is flat where the power distance is low. HR's policy works on ethical principles that are based on ethics (anon, n.d.). Google receives over a thousands of applications every year, considering the high rewards it offers to its workforce. In a modern way, HR managers carry out a refined recruitment process and selection based on a traditional model (Rodrigo, 2016).

Content Creators (Partners)

Content creators are an essential aspect of the youtube business model. They are technically directly employees of youtube because the youtube company didn't hire them. However, they are considered youtube's human resources, called 'partners' since the creators are individuals, groups, and companies who provide content (video) on youtube. Youtube gives incentives to creators in the form of money. With the average Youtube pay rate hovering between \$0.01 and \$0.03 for an ad view, a YouTuber can make around \$18 per 1,000 ad views, which comes out to \$3 to \$5 per 1,000 video views.

6.2 Capabilities

Below are the capabilities of YouTube, including Brand equity, Global presence, Technological Innovation, and customer base.

6.2.1 **Brand equity**

Brand equity is the consumers' overall attitude toward a brand. For YouTube, it is considered a technologically innovative and user-friendly brand. Brand equity is a crucial strength for any large brand.

Over time, YouTube has shown consistent focus on customer service by developing technological innovation to aid with customer convenience. YouTube receives benefits from its parent company, the leading global technology brands, and it was able to build the image of a user-centric and innovative company. This is a significant advantage that has guided the growth of Alphabet in recent years. These are also the reasons behind YouTube's fast growth and strong financial performance.

6.2.2 Global presence

YouTube's global presence is also a key strength and a significant root of its brand's competitive advantage. The company's fast growth is made possible by increasing internet usage worldwide, and the higher accessibility comes from the development of smart device usage. Most of the online products and services from YouTube are accessible worldwide free of cost.

6.2.3 **Technological Innovation**

Technological innovation is a crucial strength that differentiates any technology brand in this age of heavy competition. Alphabet, the parent company of YouTube, has been invested each year heavily in technological innovation development. It has brought an extensive range of innovative and user-friendly products, including its search engine, browser, email, and a comprehensive range of other products for developers and enterprises. Investing in innovation helps YouTube differentiate its brand from the competing brands and grow its range of products and services. In 2018, Alphabet spent 21.42 Billion dollars on research and development. This is among the highest in the entire industry.

6.2.4 Customer base

YouTube's user base is growing every year. The user population of YouTube was only 1.8 billion in May 2018, and YouTube has 2 billion logged-in monthly users in this year 2020. Its search engine, video hosting online are most popular around the world. The proliferation of the internet has also aided the growth of its customer base. A large and loyal customer base is the key strength of any brand and the primary driver of sales and revenue.

6.3 Resources and Capabilities Analysis

Superfluous Strength	Key Strength		
Unlimited time of video	 Strong Brand Awareness and Brand Image Brand Equity Talented Employee Strong Financial resources 		
Inconsequential Weaknesses	Key Weakness		
Low Quality in some Video	 Dependence on advertisement Income Inappropriate contents Copyrights material Intrusive advertisement 		

Table 8: Resources and Capabilities Analysis

Key strength

YouTube has strong brand awareness, brand image and brand equity which are the main key strengths that make YouTube more trustworthy to the audience and partner. And these key strengths also can lead the new customers, both users to become YouTube members or advertisers to invest with the company. Moreover, they also have talented employees which can improve YouTube to be a better website and can help to support their customers. And the last one important key strength is YouTube has a strong financial resource that can be used to invest in their R&D to improve their website and sustain the good quality for the customers.

Superfluous Strength

The superfluous strength is a strength that is not an important source of competitive advantage which YouTube has an unlimited time of video for creators to upload their video as long as they can. Compared to some other video sharing platforms like instagram or twitter that limited the length of video for users to upload. However, even this is one of a strength but it is not that important to be a competitive advantage for YouTube.

Key Weakness

The key weakness is the thing that is important to the company but they cannot perform it well which leads to a company weakness.

85% of YouTube revenues come from advertisements, if YouTube doesn't have these advertisements, YouTube will become bankrupt. Moreover, still have inappropriate content on youtube and also some uploaded videos without copyrights on the website.

Inconsequential Weaknesses

Some videos on YouTube still have a very low quality as 144p which is an inconsequential weakness of YouTube. Due to the surroundings of watching video, sometimes the internet cannot play a good quality of videos because of the low quality of the internet. So, YouTube provides a choice to those users to play the video with lower quality and can make the video play more smooth. However, this inconsequential weakness is not important to customers because there are a million videos on YouTube that have better quality for users to select to watch.

6.4 VRIS Analysis

6.4.1 Capability

	V	R	ı	s	Competitive consequences	Performance implication
Brand Equity	Y	Y	Y	Y	Sustainable Competitive advantage	Above Average Return
Global Presence	Y	N	N S	Y	Competitive Parity	Average Return
Technological Innovation	Υ	Y	Y	Y	Sustainable Competitive advantage	Above Average Return
Customer Base	Y	Y	N	Υ	Temporary Competitive Advantage	Above Average to Average Return

Table 9: VRIS Analysis: Capability

6.4.2 **Resources**

	V	R	I	S	Competitive consequences	Performance implication
YouTube Space	Y	N	N	N	Competitive Parity	Average Return
Captital	Y	Y	Y	Y	Sustainable Competitive	Above Average

					advantage	Return
Technology	Υ	Y	Y	Y	Sustainable Competitive advantage	Above Average Return
Brand	Y	Y	Y	Y	Sustainable Competitive advantage	Above Average Return
Partners and Advertisers	Υ	N	Y	N	Competitive Parity	Average Return

Table 10: VRIS Analysis: Resource

Chapter 8

National Diamond Analysis Of Youtube

The diamond model, also known as the Porter Diamond or the Porter Diamond Theory of National Advantage, describes a nation's competitive advantage in the international market. In this model, five attributes are taken into consideration:factor conditions,related and supporting industries,demand, strategy & structure & rivalry and government. According to Michael Porter, "These determinants create the national environment in which companies are born and learn how to compete.

7.1.Factor endowments

7.1.1 Intelligence Technology of Database

YouTube's infrastructure is backend microservices written using Python, C, C++, Java with the YouTube data infrastructure Guice system. MySQL is the primary database operated by Vitess, a MySQL horizontal scaling database clustering framework. For caching & Zookeeper for node coordination, Memcache use. Popular videos serve from the CDN, and lesser-played videos are moderately collected from the archive. Moreover, a unique identifier is given to each video at the time of upload. It is processed by a batch job that runs multiple automated processes, such as generating thumbnails, metadata, video transcripts, encoding, setting monetization status, etc. For video compression, VP9 & H.264/MPEG-4 Advanced Video Coding AVC codecs are used to encode HD & 4K quality videos at half the bandwidth required by other codecs. Furthermore, For streaming videos, Dynamic Adaptive Streaming over the HTTP protocol is used. It is a streaming technique for adaptive bitrate that allows high-quality videos from traditional HTTP web servers over the web. The material is made available to the viewer at different bit rates through this technique. The YouTube client automatically changes the video rendering according to the viewer's internet link level, thus reducing the buffering as much as possible.

• Content Delivery Network

Using Google's global network, YouTube utilizes low-latency, low-cost content distribution. In contrast to fetching it from the origin server, it leverages the globally distributed edge points of POP presence to allow its client to bring information much faster.

Data Storage

The videos are in warehouse-scale Google data centers on hard drives. The Google File System & BigTable manage the files. The GFS Google File System is a

distributed file system built in a distributed environment by Google to manage large-scale files. Moreover, BigTable is a low latency distributed data storage device designed to deal with petabyte-scale data spread across thousands of machines based on the Google File System and about 60 Google products use it.

Vitess

Each MySQL link on YouTube has an overhead of 2MB. Each connection was associated with a computational expense, and additional RAM had to add as the number of connections grew. Through its link pooling function based on the Go programming language's competition support, Vitess helped them manage these connections at low resource costs. To control the cluster and keep it updated, it uses Zookeeper.

7.1.2 Finanacial

In the years to come, all signs point to increased spending on YouTube.

In 2020, the platform projects to bring in 4.34 billion net advertisement sales, a 26.5 percent rise from 2019. Moreover, the expenditure is predicted to rise further to 5.21 billion in 2021 and break the 6 billion mark in 2022 to 6.06 billion.

7.1.3 **Employees**

Have a strong cross-disciplinary team that recognizes the whole system and what is behind the system. Employees who can manage marketing strategies, improve and develop software technology, computers, and set up networks that are easy to access, etc. According to the great and professional employees, it will lead YouTube continually growing with the advanced technology to serve customers and audiences needs and creating customers loyalty to the platforms, such as YouTube is

the most cost-effective platform to promote products or services advertising to large numbers of audiences that will create awareness in customers and increase business sales.

7.2 Related and supporting industries

Each country or region has different data protection laws, and the degree of perfection and rigor of protection is also different. Regardless of where Youtube processes customer information, it will always adopt the protective measures set out in Google's policies and will also comply with specific legal frameworks related to data transfer, such as EU-US and Swiss-US Privacy Shield Frameworks.



7.3 **Demand**

YouTube has 2 billion subscribers worldwide. Besides, YouTube is a social media site that is continuously rising. Owing to how open it is, one of the critical reasons YouTube continues to maintain its dominant position in the industry is making it easy to get started and share your content with a broad audience. The ease with which people can get created on YouTube has made an enormous contribution to attracting millions of content creators worldwide. Moreover, more than half the advertisers run Youtube video ads. And while YouTube already accounts for more than a quarter (27.1 percent) of the investment of marketing teams on digital video advertising, in the next 12 months, 62 percent of marketers expect to raise their video marketing budget for YouTube ads.

User Demographics

At least 90% of U.S. internet users aged 18 to 44 years viewed Youtube based on generation. YouTube is the most used social network for millennials in both the U.S. and U.K. markets. The choice of visual content among other YouTube statistics also illustrates styles. Furthermore, understanding the age group-based use of YouTube will allow advertisers to understand whether their target demographic is present on youTube. Using YouTube advertising may be a valuable tool for confident companies that their target audience is using the social network site.

Frequently

People watch one billion hours of YouTube videos every day and produce billions of views (YouTube, 2019). That's around 8.4 minutes a day per person if every single person on earth watched a video. 500 hours of video are uploaded every minute worldwide to YouTube (Tubefilter, 2019). In short, 30,000 hours of uploaded

video every hour. Moreover, 720,000 hours of videos are posted to YouTube every day. It's no surprise that YouTube increases its scope as a channel, considering the amount of new content uploaded to YouTube every minute. By creating a community and communicating with their customers, by showing their goods or advertising on the site, businesses may benefit from the use of YouTube.

7.4 Strategy, structure, rivalry

7.4.1 Firm strategy

YouTube's mission statement is "to give everyone a voice and show them the world." YouTube concentrates on video content. The company makes access and sharing of this information easy and convenient through its online sharing platform. By doing so, it shows its commitment to easing communication and entertainment. The components related to this mission statement is (1) Give everyone a voice (2) Show everyone the world

YouTube designed its UX/ UI on its platform with extensive simplicity, so users can use it to communicate their voices or display their creativity very quickly. Utilizing such a design also makes it easy for users to obtain materials online, contributing to the users' experience on the website that the company gives its customers. YouTube satisfies the second component by ensuring no limitations to who can upload their videos to its website. The company also makes things even more enjoyable by creatively exploiting its algorithm to categorize content based on global regions. Users will benefit from getting suggestions of content correlated to their interest, analysis with YouTube technology so that the users have an easy time getting recommendations of related content when they surf YouTube.

7.4.2 Firm structure

According to research, 80% of human experience comes from vision. An experiment was also conducted abroad. They divided the subjects into two groups and used plain text and images to let them receive the same message. After three days, the text group only had 10% of the message's memory. The memory of the message in the image group is 65%. This means that your brand is best equipped with media exposure of "video" to make consumers more impressed by you and youtube did it!

In the YouTube audio-visual ecosystem constructed by audiences, creators, content publishers, and brands, the creation of audio-visual content is booming. In Taiwan, as of June 2020, there are 65 YouTube channels with more than one million subscriptions and more than 1,250 channels with more than 100,000 subscriptions. The diverse and rich channel content creates opportunities for brands to communicate with the audience.

With the changes in user behavior and the vigorous development of content creation, YouTube provides user insights and innovative advertising solutions based on internal data to help brands further formulate precise marketing strategies and effectively reach potential target consumer groups. Obtain specific marketing results.

7.4.3 **Rivalry**

1. Netflix – Netflix has taken away a portion of youtube users. These users usually present the dissatisfaction toward the number of advertisements and the under-standard quality of videos on YouTube. As a result, A number of YouTube formr users have switched to Netflix for paid content with higher-quality content and non interrupted programs and movies.

2. **Vimeo** - Vimeo is a video platform established in 2004.Vimeo's popularity is that it can compete with youtube. In Vimeo videos, the absence of advertisements is its biggest advantage over youtube.

7.5 **Government**

The public sector in Taiwan and the video and audio users who operate YouTube are working together to promote policies. In the 2020 Taiwan annual video rankings announced by YouTube, the most viewed video is the "Precautions for Home Quarantine, Quarantine and Medical Treatment" released by the Department of Disease Control of the Ministry of Health and Welfare.

Chapter 8

BCG Analysis Of Youtube

This chapter is focused on the Boston Consulting Group's product portfolio matrix (BCG matrix) also known as Growth/Share matrix with the addition of analysis of synergy among the strategic business unit (SBUs). BCG matrix is a strategic tool designed to help with long-term strategic planning, it can help businesses highlight the growth opportunity of the products. The BCG matrix is commonly used to analyze business or product portfolios by comparing the relative ratio of one's market share to the largest competitors in the industry. By reviewing the portfolio of the products, companies can decide whether to invest, to discontinue or to develop the particular products. Additionally, synergy among Strategic Business Units (SBUs) are also analysed in this chapter. To build synergy among SBUs is considered to be the strategy goal of many diversified firms. Creating synergies among the SBUs will allow a company to operate more efficiently and effectively in managing the scarce resources. In turn, a company will be able to generate a product-market portfolio with higher profitability.

The main goal of this chapter is to analyse the synergies of Alphabet company using the BGC tool. Alphabet, formerly known as Google, is the main company of this analysis because it is a parent company of YouTube; therefore, by looking into Alphabet synergies will help better understanding of the company investment decision made for YouTube. Alphabet is a multinational technology that

specializes in internet-related services and products, which include online advertising technologies, a search engine, cloud computing, software, and hardware.

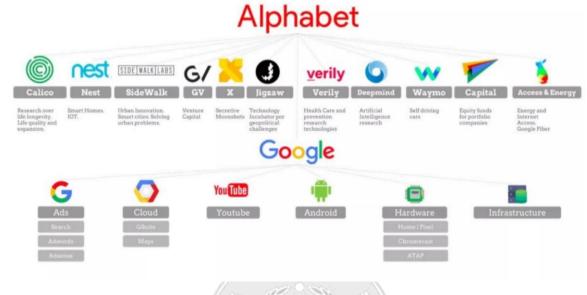
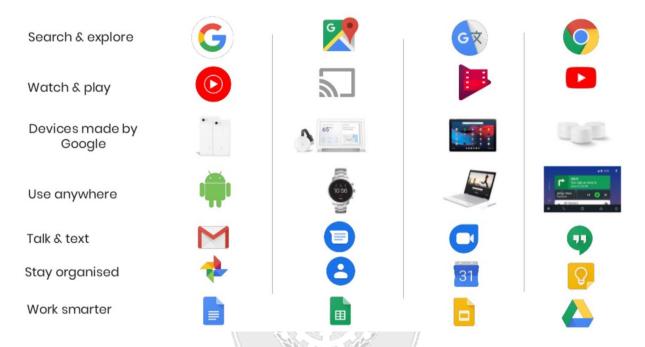


Figure 11: Alphabet's Business Units

8.1 **BCG Analysis**

The below figure shows Google product line which is based on the usage.

According to Alphabet's products and services, we divided it into 7 product lines which



have search and explore, watch and play, devices made by google, use anywhere, talk and text, stay organised and work smarter product lines.

Figure 12: Google product line by the usage

The matrix reveals two factors that companies should consider when deciding where to invest, company competitiveness, and market attractiveness. Each of the four quadrants represents a specific combination of relative market share, and growth.

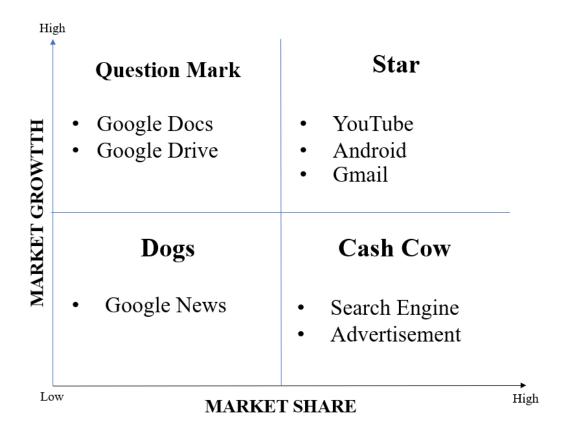


Figure 13: BCG matrix for google

8.1.1 Google News - Dogs

Google News is a news aggregator service developed by Google. It presents a continuous flow of articles organized from thousands of publishers and magazines. Google News is available as an app on Android, iOS, and the Web, serves to the users either within the application or as a part of Google Search results.

Google News is currently not making any significant money for Google. However, It is successful in terms of the number of users and it does drive Google search results. The advertising revenue from these searches is estimated to be around \$1bn a year worldwide.

8.1.2 G Suite (Google Docs, Google Drive, Google Sheet) - Question Mark

G Suite is a cloud-friendly version of Office by Google. When it launched, Microsoft, the owner of Office, responded with Office 365. According to market research conducted by Gartner's 2019, Microsoft had 87.5% of the email and authoring market share in 2018 while Google held only 10.4% of the office suite market. For the revenue, G Suite generated revenue for Google estimately around \$1.9 billion

in 2018. However, its **market worth is at** 18.2 **billion** which considered valuable to the company.

Company	2017 revenue	2018 revenue	2017 market share	2018 market share
Microsoft	\$14.7B	\$15.9B	88.2%	87.5%
Google	\$1.6B	\$1.9B	9.8%	10.4%
Zoho	\$138.8M	\$171.2M	0.8%	0.9%

Figure 14: Top office suite vendors (Source: Gartner)

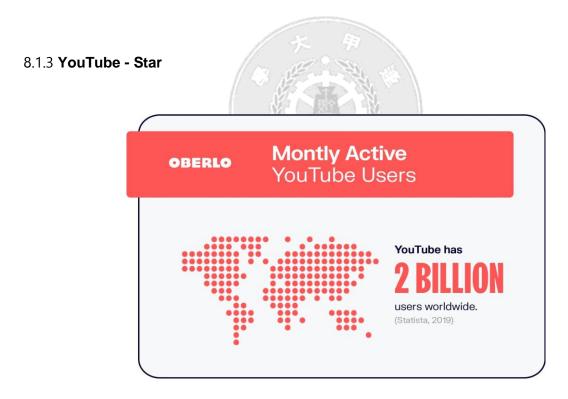


Figure 16: Monthly Active YouTube Users (Source: Oberlo)

According to Statista.com, the information about the most popular social networks worldwide as of April 2019 and the most number of active users they have on a monthly basis. YouTube has 2 **billion** users worldwide (Statista, 2019). The only social media platform that has more monthly active users than YouTube is Facebook.

Google acquired YouTube in 2006 for **US\$**1.65 **billion**, and now YouTube operates as one of Google's subsidiaries. Since the creation of YouTube, its mission has been to provide fast and easy video access to users, and the ability to share videos frequently. YouTube makes it so easy to get started and share your content with a large audience. The simplicity with which people can get started on YouTube has contributed immensely to attracting millions of content creators around the world.

YouTube ads were worth 9% of total Alphabet revenue in 2019, up from 8% in 2018 and 7% in 2017. YouTube ad revenue's seeming resilience compared to overall revenue may mean we may well see this trend continue in 2020.

The estimation of YouTube revenue would rise to \$24.7 billion by 2020, 13% of the estimated \$189.9 billion, predicts Alphabet will bring in over 2020. Overall, ads contribute around 85% of Alphabet's total revenue (Salmon, 2019).

YouTube ad revenue was worth \$15 billion in 2019, \$11 billion in 2018, and \$8 billion in 2017 to Alphabet and according to the figure below, you can see that YouTube generates over 15% of Google ad revenue.

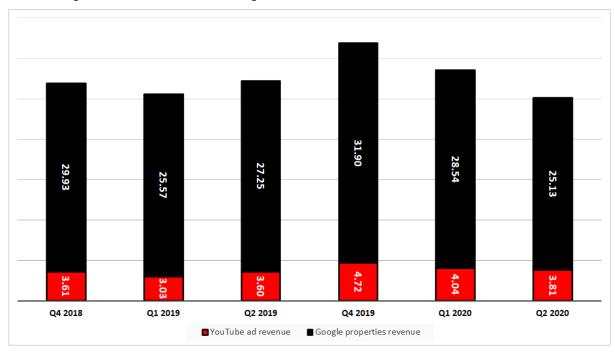


Figure 16: YouTube ad revenue by quarter vs Google properties revenue, Q4 2018 – Q2 2020, USD billions (Source: Alphabet)

9.1.4 Android - Star

Android is the most utilized smartphone system presently. The International Data Corporation (IDC) Worldwide Quarterly Mobile Phone Tracker forecasts worldwide smartphone shipments to decline 6.4% in 2020 to reach 1.285 billion units, down from 1.373 billion in 2019.

Year	2018	2019	2020
Android	85.1%	86.1%	84.8%
iOS	14.9%	13.9%	15.2%
Others	0.0%	0.0%	0.0%
TOTAL	100.0%	100.0%	100.0%

Figure 17: Worldwide Smartphone Shipment OS Market Share

However Android's smartphone share will reduce to 84.8% in 2020 from 86.1% in 2019, consequently to the time of the launch of iPhone SE (2020). Furthermore, This is partly driven by the newly launched new 5G iOS devices by Apple. Amounts are expected to grow at a five-year compound annual growth rate (CAGR) of 1.2%, with shipments of 1.3 billion in 2024.

8.1.5 **Gmail - Star**

Gmail or Google Mail is an email service, free for everyone to use. It offers an inbox and also provides 15GB of cloud storage for each account. For revenue, 80% of Gmail revenue comes from Adsense ads, and the advertisers will be charged for a per click and per 1000 ad impression basis. With over 1.5 billion active Gmail users, ad revenue forms a significant part of Gmail's annual net income.

• Gmail Displays Personalized Ads

When signing up with Gmail, the personal data will be shared. The personal data including the emails received the contacts frequently email, the contacts within

A Multivariate Heuristic Model for Fuzzy Time Series Forecasting

the list, and more. Gmail uses that data to benefit Google's AdSense. The platform will serve you personalized ads on every platform that you visit.

It is estimated that Gmail shows over 20 million adverts per day. For example, If advertisers pay only \$0.05 for their ad's impression, Gmail is generating a revenue of \$200,000 each day. That is \$200,000 X 365 days = \$73 million per annum.

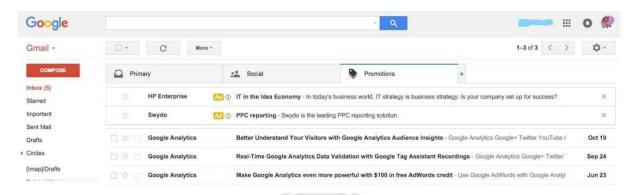


Figure 18: Gmail Personalized Ads

8.1.6 Search Engine - Cash Cow

Google search is considering one of the most profitable businesses ever created by Google. It was helping the company gather a revenue of more than \$100 billion. Google accounts for over 70% of the search market share and captures almost 85% of mobile traffic. In short, Google is unquestionably the most popular search engine. Google has enormous traffic through the website, making it an obvious option when brands and advertisers intend to capture organic or paid search.

Since people would go online looking for information, search grew swiftly as more people went online looking for information. Furthermore, the increasing smartphone usage also boosted, and revenue climbed after Google placed more ads into the top of mobile search results. From 2017 to 2019, the number of internet users in Europe grew 10%, while in North America, growth was only 2%.

8.1.7 Advertisement - Cash Cow

The Search-Ad business is Google's is the primary source of income of Google's business model. For this reason, the Search-Ad business is Google's Cash Cow. In 2019, the total amount of 160.74 billion U.S. dollars generated from ads revenue, which made up 70.9 percent of revenue in the most recent fiscal period.

The number is no surprise as Google accounts for most of the online and mobile search market worldwide, at 90 percent of global desktop search traffic. Google almost has no domestic competition in many of them. There are a few exceptions, such as China, Russia, and Japan, where local products are preferred.

8.2 Synergy among SBUs

YouTube is one of the subsidies companies under Alphabet, so in this analysis will discuss Alphabet's SBUs synergy. Alphabet is a multinational technology that specializes in internet-related services and products, the most well-known subsidiaries under Alphabet are Google and YouTube. Alphabet is currently the leading company in the technology industry ranking as is the world's fourth-largest technology company by revenue and one of the world's most valuable companies.

A Multivariate Heuristic Model for Fuzzy Time Series Forecasting

Being the leading company technology industry, Alphabet disperses the benefit of owning the advanced technology and innovation through its subsidiary companies. For this reason, it is important to highlight Alphabet's cost synergy which grants an extensive competitive advantage throughout the company's businesses.



8.2.1 Cost Synergy: Reduction in Costs incurred in acquiring technology

Alphabet intensively invests in developing machine learning(ML) and artificial intelligence (AI). The development of ML and AI is scalable and will create potential to enhance user experience and brand perception, customer loyalty, customer satisfaction, etc. In turn, increase the potential growth of the company. ML and AI apply in multiple alphabet's businesses; for example, Google Search was considered as the leading tool for searching information. With the integration of artificial intelligence and machine learning they are targeting a more strategic role in one's life, becoming personal assistants known as 'Google Assistance'. This will drastically improve the role Google Inc. plays in our lives and of course simplify our operationally challenging everyday. Despite the fact that Amazon's Alexa and Apple's Siri came first and were until recently leading by active users, it appears that the winner of this battle is going to be Google Inc., also due to the cross-product synergies.

For YouTube, several mechanisms depend on artificial intelligence and machine learning. The outstanding appliances of ML and AI of YouTube are YouTube API and user interface, by understanding how the users actually use the services, YouTube API has one of the most efficient and user-friendly. It also helps develop interface and features, including automatic identification and removal of objectionable content, the automatic recommendation of content, and playback of the next related video based on the users' interests and watch history.

The development of Machine learning and artificial intelligence also deployed the API in other of their products. It relied on its infrastructure and its array of

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algorithms that continuously analyze and find ways to improve its offerings. The latest advancements enable their users to get more work done with fewer clicks and taps. For instance, AI in Gmail has spam protection and can smartly sort your emails into classifications such as Promotions, Social, Updates, Primary, and Priority. Gmail can also foretell the text while you're trying to compose an email to make the job faster. Google Drive uses ML to analyze the most worked on files and expects which file you access most and sorted to 'Quick Access' to give you instant access to it in Drive, eliminating the need to navigate to the file manually. Google Translate's recent Al advancements, specifically Neural Machine Translation, boosted translations' quality and reliability, including over 109 languages to deliver relevant translations. Google has implemented several AI and ML-powered features into Google Maps, such as integrating with Google Assistant, analyzing the user's commuting routine, and suggesting routes with less traffic and delays based on live data. Another such feature is the recommendations for nearby points of interest, such as gas stations, places to eat, ATMs, and more.

Alphabet Google Other bets Transportation & logistics Google cloud service U 🐴 Wing Google Cloud kaggle SIDE WALK LABS C LOON AutoML: ML model training Al-based Internet connectivity Autonomous Al & IoT for smart driving Cloud TPU for AI workloads cybersecurity learning community drone delivery city planning BigQuery and other analytics tools autonomous navigation Healthcare Investment arm capitalG verily Calico Google Assistant G/ Al in diagnostics, Machine learning Growth equity fund CVC arm with 60+ deals to AI startups Google Assistant, Android neural network API, Al-focused with ML training for smart thermostat, smart cameras, Pixel visual core investment fund voice tech other healthcare R&D drug R&D portfolio companies since 2013 Moonshots & other R&D Other Al initiatives YouTube Jigsaw DeepMind Google Al ML-based Conversational Al to AlphaGo, healthcare Al, and Smart Bidding, Google Brain, Quantum Al, Moonshot projects AutoAds spot online abuse special projects for Google including ML in robotics customer analytics perception, translation, and violations review and more

Alphabet's org structure: Key Al initiatives

Figure 19: Alphabet's key Al initiatives (source:cbinsights)

8.2.2 Management Synergy: Alphabet's cloud focus

Goal of management Synergy is to improve quality of products and services, efficiency of operations, and well-utilization of resources as well as reduce task duplication. In December 2015, Alphabet reorganized its management and unified the cloud businesses under one leader, VMware. Cloud computing involves operating computer functions and capabilities in a service access via an Internet-based platform. It's commonly used for data computing, storage, and management that takes place off an enterprise's local machines. The move is expected to help Alphabet innovate faster and deliver better products to its customers. Alphabet believes that the move is already delivering results. Organizations are able to see the benefit of integrating Google Cloud Platform with their suite of business applications, all of which are

already integrated with their machine learning services. Alphabet believes that its investments in machine learning and artificial intelligence will help it acquire a bigger share of the cloud market. During the quarter, Alphabet introduced Cloud Machine Learning, which provides modern machine learning services with pre-trained models such as Cloud Vision API and Cloud Speech API to its cloud offering. Alphabet is convinced that its machine-learning capabilities will help organizations really understand and act better on their data. In fact, it claims: "bringing our machine learning APIs over time through the cloud to our enterprise customers is going to be a huge source of differentiation for us".

For YouTube, BBR networking algorithm helps solve the problem of traffic congestion in the complex networks and helps accelerate its consumer services, is a benefit from cloud investment.



Chapter 9

Conclusion

This study revealed that recently YouTube is the most famous video sharing platform and performs exceptionally successfully from most company strategies. However, the recent time has many YouTube's new competitors, but YouTube is still in the top ranks worldwide. From our group's perspectives, we found that this company has the strongest advanced technology engineering team who are always up to date and develop the systems immediately. Besides, the marketing teams also initiate and perform well with the digital marketing strategies; primarily, YouTube Ads is the best company's revenue. We learned about this company and have a better vision about this business through their competitors. Although the company has some weaknesses and some strategies that still have a higher cost than others, its competitors are still stiff to overcome YouTube in this time and the near future.

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