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Google TV

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Google TV Strategy

Introduction

In 2010, TV industry tried to excite customers with 3D technology. Despite the intense advertisements, the responses from customers didn't appear as expected. Less than 1 percent of US households have a 3DTV set and just only 8% are interested in the 3D technology according from Leichtman Research.[1] Some reasons for 3D TV failure are too pricey ($600 - $1,000 more than their HDTV counterparts), few contents available, and hassle from 3D glasses.[2]

The industry has come up with the new hype for TV set in 2011. In 2011 Consumer Electronics Show (CES), the new trend is Internet-enabled everything. The spearhead of this trend is inevitably TV set market. Integrating internet with TV has been discusses and debated for decade. WebTV from Microsoft is a good example of the effort to combining internet with TV. WebTV was launched in 1996 with the set-top box and wireless keyboard. The primary purpose was for web browsing and email. However, WebTV wasn't successful back at that time. It seems like a déjà vu, the same trend has come back. The big issue for Internet TV in 2011 here is not the technical feasibility but how to deliver the meaningfulness for the end users and what to do with this new feature.[3]

TV has been the central of home entertainment for 70 years. At the early stage, there were just a few broadcast channels which led to limited choices for viewers. Viewers were told what and when they could watch on the TV. The next stage, cable and satellite provider companies have begun to provide more channels for viewers by charging on subscriber basis. Viewers have been offered more contents to watch. Anyway, viewers have still not got the freedom to choose what they want to watch. There have been evidences that viewers really want to have the flexibility for their watching; DVR has been used to record their favorite shows for watching other times, they use video-on-demand to watch particular programs whenever they like, they surf the internet to check soccer scores while watching movies, and so on. It appears that viewers want to perform multitasking in front of their TV. Internet TV then is thought to be the solution for these changing behaviors.[4]

Google announced its “Google TV” which is the operating system that integrated internet features in TV in May 2010. Google TV is the next big move from Google that try to dominate living room segment. This paper will analyze Google TV’s strategy by using Porter Five Forces model and SWOT analysis.

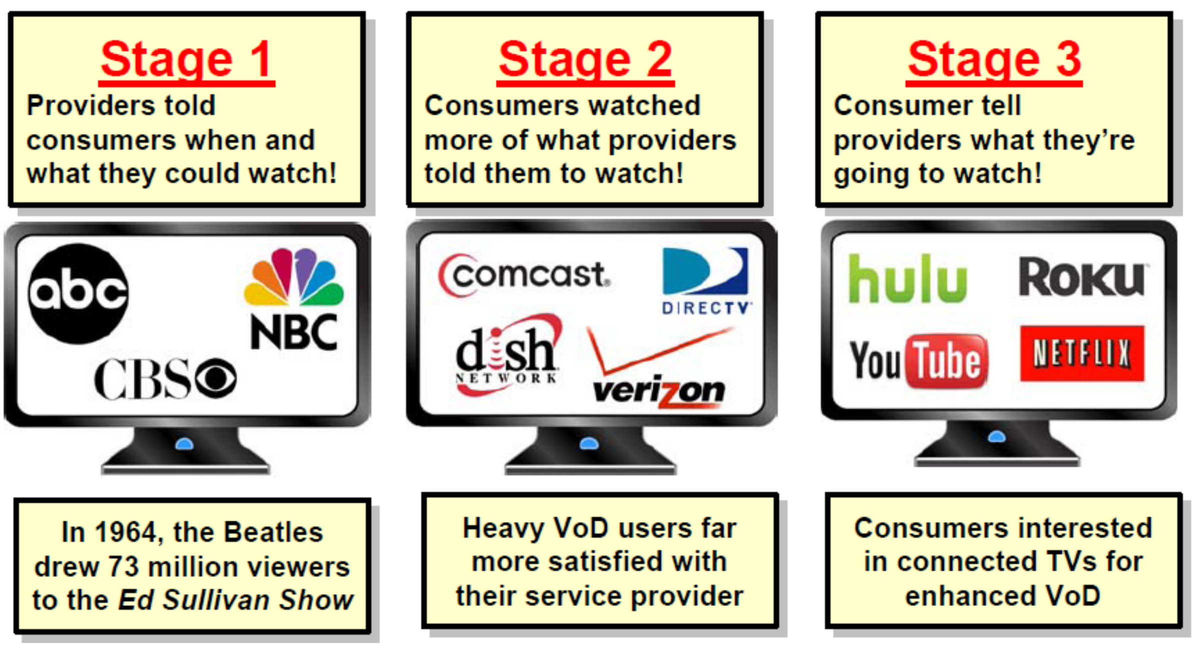

Figure 1: The Evolution of Television [4]

Company Background

Google was begun by two graduate computer science students, Larry Page and Sergey Brin, from Stanford University. The company was originated through their research project which they developed PageRank algorithm. Search engine based on PageRank would show better and more relevant results than other existing techniques. They originally implemented Google search engine under the Stanford website then the domain name for Google was registered in 1997.[5]

Google Inc. was incorporated in 1998. At that time, the company was started in the garage of their friend's house in Menlo Park, California. The company received $25 million funding from venture capital firms Sequoia and Kliener Perkins in 1999 and moved its office to Palo Alto home of several technology startups. Google.com initially didn't have any advertising or other services. It offered only search results. The only revenue came from licensing its search technology to Yahoo and other websites.[6]

In December 1999, Google began its advertising business. In 4 years, Google's market share surpassed its rival, Yahoo, and increased to 65.6% by 2009. The company launched its IPO in August 2004 at $85 per share. The share price reached a peak at $700 in 2007. After its IPO, Google has launched multiple products that expand its business beyond search engine. Some of them are Gmail, Google Maps, Google Books, Google Docs, Google Checkout, and much more. [6]

Google has also acquired many companies to grow its business. In 2005, Google spent roughly $130.5 million buying a total of 15 small companies. In 2006, Google bought YouTube for $1.65 billion which expands its advertising business in online video. In 2007, Google struck a deal to acquire DoubleClick for $3.1 billion giving Google relationships with web publishers and advertising agencies.

In recent years, Google has expanded its business beyond the website. Google has plan to introduce Google Chrome OS which is the new operating system designed specifically for netbooks. Android, operating system that runs on mobile devices, has shown a robust growth in user activations. Google TV is the latest product for TV set. This represents the three-screen strategy: mobile, computer, and TV that many tech companies are pursuing. These expansions reflect the Google mission “to organize the world’s information and make it universally accessible and useful” [6]

Google TV

Google TV is developed from Android platform and used Google Chrome as a web browser. Users are able to watch traditional TV channels while accessing internet, cloud based information and applications on their TV. The video contents available on the internet will be searchable on the TV. Content platforms such as Netflix and Amazon Video on Demand can be accessible from Google TV as well. Three principles of Google TV are:

- Deliver a single, seamless experience that brings together the best of TV and the best of the Web.
- Transform the TV into a platform for innovation by building on Android, Chrome and Flash 10.1.
- Apply open source to the platform to enable industry adoption across multiple device categories.[7]

Google has 3 key partners: Intel, Sony, and Logitech in development of Google TV. Google take care software development part. Intel develops and supplies the new chip set designed specifically for Google TV. Sony and Logitech are responsible for the hardware side. These alliances strategy allows Google to stay on its core competency. Sony has struggled to maintain the price and technological advantage in the high competitive TV market. Google TV is an opportunity to get ahead of competitors for Sony. Intel is not doing so well outside the PC chips market. Its rival, ARM, has been dominated energy-efficient chipset market. Intel is trying to expand its line of energy-efficient Atom chips, currently found in laptops, into TV set. Logitech is responsible for set-top box and peripheral devices development [8]

Currently, there are 3 ways to get Google TV: Sony Internet TV, Sony Internet TV Blu-ray, and Logitech Revue. Dish network is currently the only cable operator who incorporates Google TV to work with its DVR. Dish network's subscribers can buy Logitech Revue at the lower price.

Porter five forces model for internet TV industry

Porter five forces is a framework for analyzing the attractiveness of the market. The framework is consisted of five factors that can affect the profitability of the business: bargaining power of suppliers, bargaining power of customers, threat of new entrants, threat of substitutions, and competition among established rival. All these factors are basically external environment.

Understanding the opportunities and threats from external sources is crucial for shaping the business strategy. The porter five forces model for Google TV is shown below.

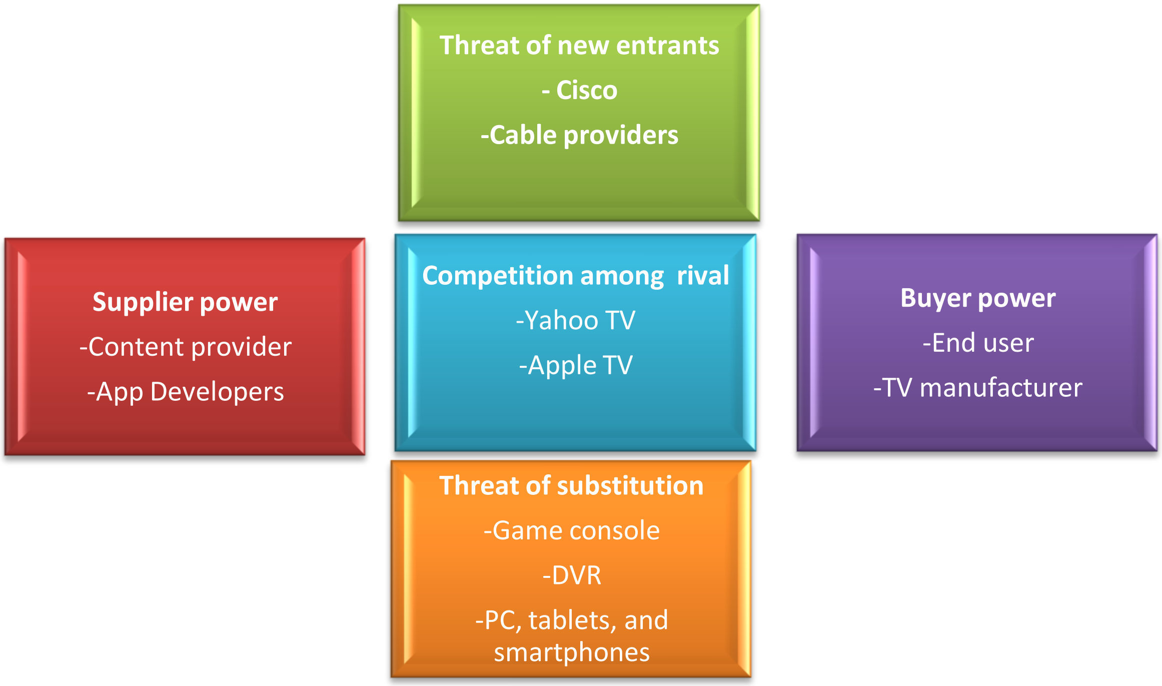

Figure 2: Porter five forces of Google TV

Threat of new entrants

The barrier to enter the market is medium to high. Integrating internet into the TV is not a big issue here. The major obstacle is how to make users comfortable by combining lean back activity with lean forward activity. So the software design is critical issue. The new entry can come in the set top box segment easier than embedded TV set since it can enter market independently. We can see from the number of set top box players is much higher than embedded TV. Another issue is to deal with ecosystem of TV industry. Many networks have tried to block their online contents on the internet TV since they are afraid that this new medium can cannibalize their existing broadcast businesses.

Imminent threat of new entrants from Google TV is from hybrid DVR box. In latest Consumer Electronics Show, Cisco unveiled the hybrid box that combining the elements of online video, on-demand, and recorded television programming. The box won't be sold to consumers directly. Cisco's hybrid box is aimed to make available via cable operators in order to help them maintaining the dominance in the living room. Comcast, giant cable provider, has already been testing its new box that combining internet video and cable TV. This hybrid box will have advantage over other competitors because consumers can lease the device from their existing cable operators. International Data Corporation (IDC) analyst Jonathan Gaw said “People would rather not buy a Google TV or a Roku or an Apple TV. They would rather not have to pick up another remote control.”[9]

Competition among established rival

Currently, there are number of competitors against Google TV in the market. The competitors appear in two forms of product type: set top box and TV set application. The top competitors for set top boxes are Apple TV, Roku XDS, Boxee box, WD TV Live Hub. The media sources that users can access vary depending on which box they buy. Apple TV allows users to hook up their iPhone, iPod, and iPad to the TV wirelessly which is a great feature for Apple fans. But Apple TV has significant downside because it offers a very limited selection of internet video sources. [10] Roku is good for streaming internet media from multiple sites and services but it doesn’t support connecting to PC. WD TV is reviewed as versatile and most user friendly plus storage device but lacks Wi-Fi connectivity. Logitech Revue with Google TV offers broad contents (but gets blocked from certain network TV sites), search capabilities and upcoming add-in applications but the downsides are high price tag ($300) and not user friendly. Overall, the market is still in early stage. There is no dominating design on the set top box yet. The concern criteria so far are connectivity option, content available, and price. The competition is intense at this stage.

Other area of competition is embedded internet TV set. Users can access internet directly from the TV set without other devices. There are couple players in the market currently. The biggest competitor is Yahoo. Yahoo platform has already appeared on many brands such as Samsung, Sony, LG, Vizio, and Toshiba. It also supports add-in applications known as widgets. Disney, major US network, has plan to create application for its ESPN, ABC, and Disney channels that can link video contents over the internet to Yahoo platform.[11] In contrast, Google TV has made available only on Sony TV set and Vizio earlier this year.[12] Google hasn't made any alliances with any TV networks so far. So Yahoo appears to be stronger than Google in this segment.

Threat of substitution

All of the latest generation of game consoles such as Wii, Xbox 360 and Playstation 3 enable users access the internet on their TV. These game consoles have the platform that users can download applications and install into their consoles. Netflix app is already available on all consoles which allow users to stream movies on their TV.[13] These Internet-connected game consoles were in about 30 million households. The usage of the console for connecting Internet is prevalent. One-third of Xbox360 users watch online video via their consoles. Microsoft and Sony generated revenue from online video services more than $500 million in 2009.[14]

However, each console supports only certain video format. Game consoles are operated separately from tradition cable TV. So the users have to switch input on their TV back and forth which is inconvenience. Unlike game consoles, Google TV is integrated seamlessly on top of users' cable or satellite boxes. The contents are searchable easier on Google TV too. The threat are more prominent on young generation since this group does not watch much live TV and spend more time on games.

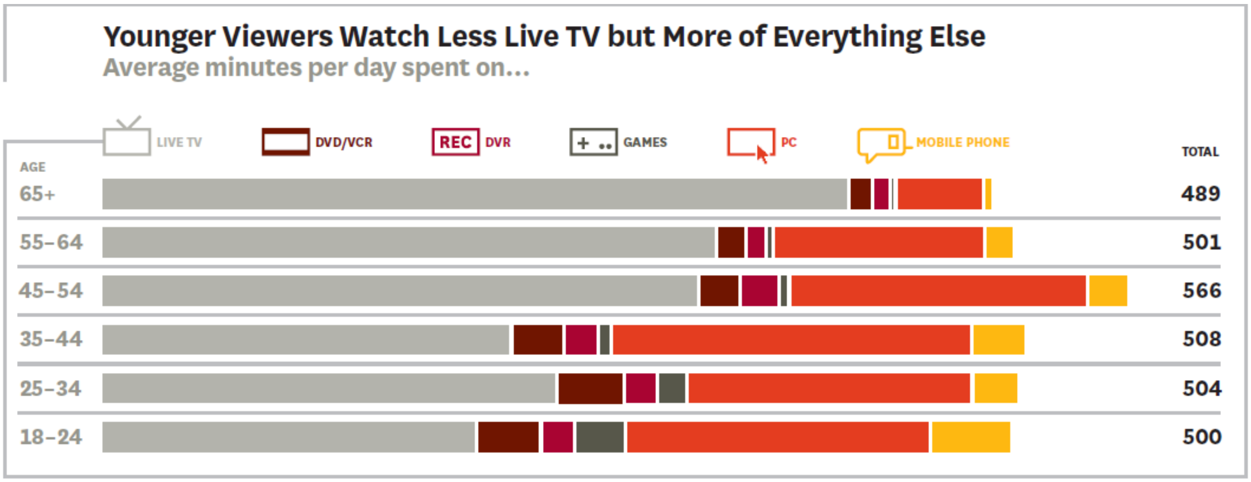

Figure 3: Average minutes per day spent on electronic devices [15]

Another threat of substitution is traditional DVR. Even though DVR does not offer internet contents, users can record their favorite programs to watch anytime they like. Cable operators now also offer Video on Demand services. So users have some power to choose what they want to watch but the choices are limited compare to Google TV.

Moreover, many people currently opt to view their favorite TV programs via computers, tablet, and even on their smartphones. However, the quality of picture and sound over these alternatives is considered mediocre comparing to the quality on the TV sets.

Supplier bargaining power

For Google TV, the supplier can be considered as content owners. Google TV would be less attractive if it cannot deliver the program or media that users want to watch. According to study from Park Associates, the most incentives for users to connect their TV to the internet are films and TV programs. Other features such as surf the web, music, and photo are not so important in users' perspective. [14] Google executives have tried to convince major US networks including ABC, CBS, Fox, and NBC to be partner with Google TV. But these networks are skeptical about Google's revenue model as the contents hosted by Google would be cannibalizing their advertising businesses. As a result, most of the full shows on the sites of NBC, ABC, CBS, and Hulu are blocked on Google TV.[16] Therefore, the bargaining power of these networks is quite high currently.

Google's strategy relies on ads-based revenue model. The critical success factor for this strategy is to have wider reach which can be achieved by free content strategy. One option for Google is a revenue sharing partnership with TV networks. Its open source strategy on Google TV can also bring peripheral devices building around Google TV and killer apps to create new experience for TV. Thus Google can induce TV networks to be on the platform.[17]

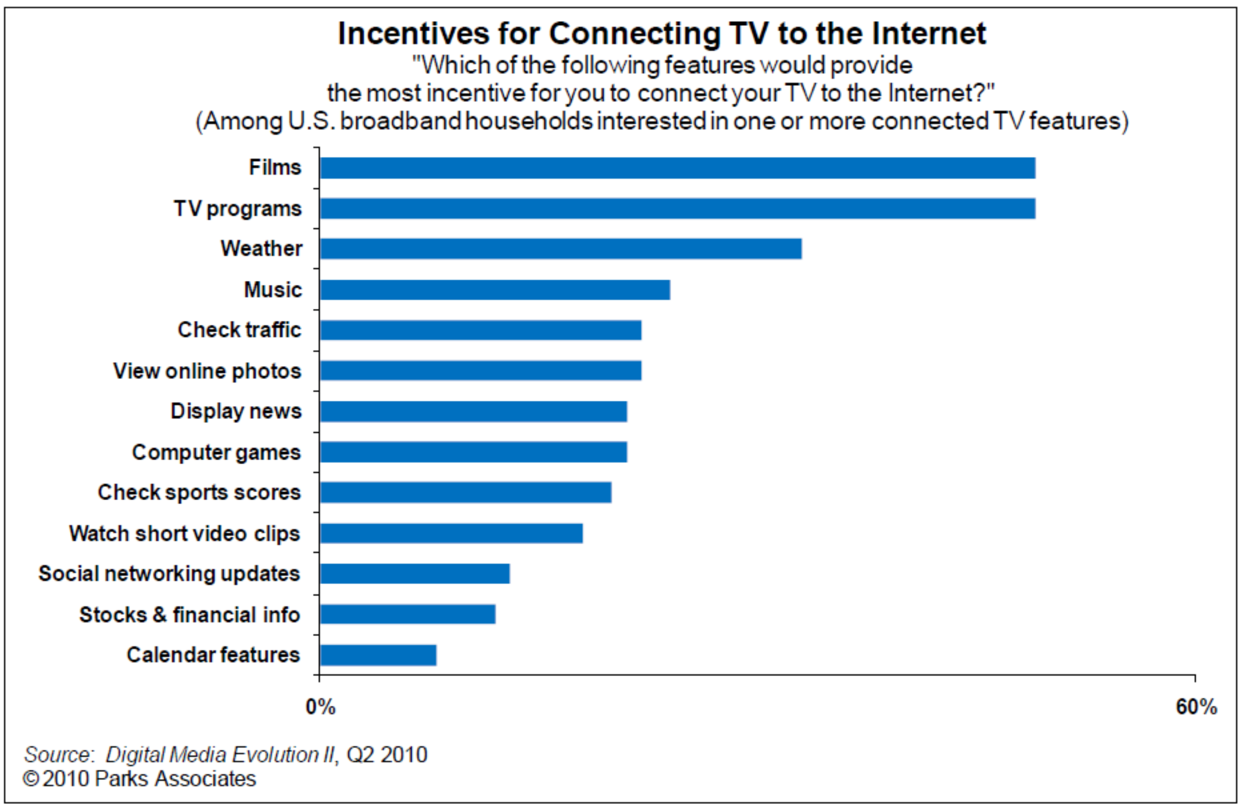

Figure 4: Incentives for TV-Internet Connectivity [14]

Google is planning to release Android market around March and April this year. Android market will work likes App Store from Apple where users can buy or download applications from third party developers. So the number of applications on Google TV will be crucial to attract consumers. Some well known applications are already available such as Netflix, Twitter, and Pandora.[18] Open source platform strategy is attractive to developers. Large network of available code will assist third parties develop applications. Open and unregulated Android market encourages developers that their works will be published. Google TV will be more appealing to consumers if it has more applications. So this is the win-win strategy. Bargaining power of third party developers is low.

Buyer bargaining power

Currently, the market of Internet TV is in the early stage. The industry hasn't been able to establish standard for internet TV yet. Many players are competing for dominant design as a result. There are many ways that users can connect their TV to the internet. Thus, the bargaining power of end-users is high at this stage. While most players in the market are playing in the niche segment, Google TV aims for mainstream market. In order to decrease buyer power, Google has to get more partners on media contents which are the main concern for end-users. TV manufacturers are trying to find value features adding into their TV set. Right now, they are indecision of the internet platform for their TV set. If there is a strong demand of Google TV from the end-users, TV manufacturers will have to adopt Google TV inevitably.

SWOT Analysis for Google TV

Strengths	Opportunities
• Recognized brand name • Rich cash company • Open source platform is attractive to developers • Multiple hardware platforms	• No dominant design yet • Huge market growth • Targeted advertisement
Weaknesses	**Threats**
• Open platform raises quality concerns • Relatively small number of partners • Currently small audiences base • Fuzzy business model	• Walled garden by TV networks and cable providers • Many competitors • High reliance on partners

Strengths

Google is clearly the number one search engine in the world right now. It has over 70% market share in the US market and over 85% globally. [19] Number of visitors of Google exceeds 1 billion a day. Google is well known about its innovative and usability. Reputation and credibility of Google can positively create hype for Google TV. Its financial status is extremely good. It has roughly 9 billion cash available in hand according to its financial report. [20] So the likelihood of funding shortage for developing Google TV is unlikely.

Moreover, open platform creates developing environment which facilitates many experienced and new developers. Large network of available code and support from fellow developers establish the network externality. Google TV is also going into various hardware platforms; embedded TV set, set-top box, and blu-ray player. This helps enhancing network effect, give consumers more choices to reach Google TV.

Weaknesses

The main challenge of open platform strategy is to control the quality of applications from third party developers. Especially with the multi-platform support of Google TV, it would be very difficult to maintain consistent quality on Google TV platform. With the small base audiences currently, developers have less incentive to develop applications for Google TV. Google still has only two partners of TV manufacturers, Sony and Vizio, by now. It needs to find more adopters in order to make it prevalent. Moreover, Google hasn't shown any clear plan how its partners will get benefits from Google TV. Google need to come up with attractive business plan for incentivizing partners in ecosystem to join Google TV.

Opportunities

The TV industry has created a great hype for Internet enabled TV in 2011. Consumers have already been drawn attention to the generation of Internet TV. Google made a right decision to enter the market in late 2010 and able to catch the trend of TV industry. The market is still considered to be in early stage. Big name companies are competing to develop dominant design for Internet TV but none has been able to take significant market share yet. According to Sun Tzu Art of War, it can be described as accessible terrain at this stage; market remains wide open with low barriers of entry. Google with the current partners has a good chance to establish the dominant design for the TV industry.

Last year, 21% of 210 million TV sets sold globally had an Internet connection. According to Displaysearch, a research firm in Santa Clara, it predicted that the portion of Internet TV will rise to more than 50% by 2014. Therefore the market size of Internet TV is promising.[21] According to Gartner research, 35% of consumer-paid TV revenue will come from IP-based network services by 2014, significant increasing from 2010's relatively small revenue. Gartner analyzed that consumers increasingly want to tailor their own content experiences through PC, media tablets, smartphones, game consoles, and Internet-connected TV. Gartner predicted that Internet will be a major medium for delivering contents by 2014. So the growth of Internet-based video services shows a good sign for Internet-enabled TV market.

Google has a good opportunity to expand its advertisement business through Google TV. Google's main revenue is derived from its online advertising particularly through its website. Google TV obviously shows interest of Google in TV advertisement market. Advertisers spend roughly 74 billion annually on traditional TV advertising in the US.[22] With the advertising innovation, Google has a good opportunity to change the rule of the game in TV advertising. Eric Schmidt, CEO, said that Google TV Ads will be a cash machine. He further mentioned that Google TV can deliver target ads the same way Google does online, and thus make them more relevant and more valuable to advertisers.[23]

Threats

The most imminent threat for Google TV is unwelcome responses from some TV network and cable providers. Even though Google has acquired some content partners such as TBS, TNT, CNN, and etc but it has failed to get contents from major TV networks. This is very crucial issue that Google has to figure out how to persuade these major networks otherwise it would be difficult to make Google TV mainstream. Moreover, the new proposal web traffic rules by the Federal Communications Commission (FCC) could tip the economics away from consumers watching TV over Internet lines if they help cable companies charge more versus their own televisions offerings.[24]

There are also many players in the market right now so the competition is intense. So far, Google hasn't been able to create considerable foothold in Internet-enabled TV market yet. Google TV's success is also relied significantly on its partners. It has no final say in production of hardware for its platform. So the critical elements of Google TV such as customer experience, customer support, interface, and usability are far from Google's control.

Conclusion

Google has made clear strategy that it wants to be everywhere Internet can go. The trend is Internet on 3 sources: computer, mobiles, and TV. Google has already made a foothold on the first two. For TV arena, it is a bit more complicated because of complex TV ecosystem. Currently, many players in ecosystem deem Google as an intruder. Google needs to show them the benefits of the presence of Google TV. Its targeted ads have a potential to change the traditional TV advertisement. Open platform strategy has already shown success in Android phones market. Google must quickly ramp up the contents and applications for Google TV in order to attract consumers. Google should also seek more hardware partners to make easier for consumers to reach the product.

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