

Date: Wednesday, March 11, 2009
Subject: Google Phone Positioning Strategy
To: Eric Schmidt
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Introduction.

The Google Phone is a relatively new type of product in a market Google has had little past experience with. Google must analyze how to properly position their new product in order to make sure it can sustain a strong hold in this new industry.

Key Points.

The Smart Phone industry supports multiple but few firms due to a limited ability to differentiate towards different target audience and a lack of necessity for owning a Smart Phone.

Google should target small enterprises, Google fans, travelers and foreign markets.

Google should limit the release of various features of its existing products to its competitors in order to give itself an advantage in the Smart Phone market.

Industry Analysis. Smart phones are a relatively new profitable product⁶. We will visit a modified list of Porter's five forces to analyze the Smart phones market.

Entry Barriers. A large number of barriers prevent entrance into the smart phone industry. Among the largest are:

- fixed costs – necessary research and development
- reputation of incumbent firms – people buy phones from companies they trust
- networking – people buy phones that their friends and acquaintances use
- switching costs – switching phones and service costs money and time to users
- differentiation – limited ability to differentiate from other phones

Bargaining Power. Smart Phone firms have relatively weak bargaining power. Some reasons include:

- substitutes – many substitutes, see below
- elastic demand – smart phones are not a necessary product, hence there is elastic demand for them.
- information – customers tend to research capabilities of smart phones due to price and high reliance on the product
- differentiation – limited ability to differentiate from other competitors
- switching costs – limited incentives for users to switch phone companies

Specifically for Google, which works with T-mobile to offer the Google Phone, there is some capability to bargain with the network provider (T-mobile) because there are a number of such providers for Google to choose from. Also, Google has a strong brand name, which helps in its bargaining position.

Substitutes. There are a number of substitutes for smart phones. Smart phones are largely used for mobile access to information. Here are some products that have similar functions:

- cellular phones
- laptops
- organizers or pen and paper
- pager

Notably, cellular phones and laptops sufficiently provide the services needed for most consumers in terms of mobile access to information.

Complements. For smart phones, any application that works well with the phones is a complement. Google owns a large number of such applications, which will be discussed later. Some complements include:

- Email
- Data manipulation applications (documents)
- Maps and GPS
- Organization applications
- Other internet applications and essentially any software available on phones
- Music and other media content
- Computers (in order to install and manipulate software on the phone)
- Products involved in travel and mobility

Rivalry. The smart phone industry is fairly rivalrous. Although there are few strong competitors, the industry does not support many firms. Some reasons for this include:

- Differentiation – there is limited ability to differentiate a smart phone from a competitor's except for interface. However, there is a significant differentiation between home and business users for smart phones. This allows for multiple firms to exist, although the total number may still be relatively small.
- Networking – People buy the same phones as their friends or acquaintances use because there may be cheaper service between the same phones. Software compatibility may also be an advantage.
- Economy of Scale – There is almost no scalability to create more software, so this does not force the market toward a small number of firms.
- Prices – Customers generally value quality significantly over price when considering buying a phone they will use a lot of the time. The reason is that prices between phones are generally similar, and prices are insignificant compared to the usefulness and amount of time customers will use the phone. Therefore, there is no room to differentiate for price, and companies with perceived low quality and low budgets for research and development will not survive.
- Brand Name – Customers care about buying a phone from the popular or reliable company, hence limiting existence of multiple small firms.

Therefore, the smart phone industry supports multiple firms due to ability to differentiate between business and home users, but does not support a large number of smaller firms. Then, the smart phone industry is very rivalrous as competitors fight to become one of these few firms. Because of this, Google should probably cooperate to some degree with other companies in the industry that does not target the same customers.

Analysis of Google. Google has some advantages in terms of positioning strategy for the Google Phone. Among the most important are a large number of complement applications, large fan base and good company image.

Complement Applications. Google offers a very large number of applications that work well with smart phones. Some of the most important for smart phones are noted below.

Google Search Engine. Google search engine is currently the most popular search engine. It is very important in internet access, which is a key feature that smart phones have that regular phones do not. Therefore, this is an important complement to smart phones. With that said, the search engine is not significantly superior to other search engines such as Yahoo!'s.

Google Maps. Google maps is one of the most useful tools for cell phones to have due to its usefulness in mobile situations. With the addition of the new mobile tracking service (with GPS) by Google, this becomes a much more useful service in the phone industry. This can be a valuable asset for people setting up meetings or traveling to new locations.

GMail. Checking Email on phones has become fairly regular. GMail is particularly powerful as it has a very devoted fan base and a very good interface that may be adapted to mobile phones.

GTalk. GTalk is used to some degree, and although many phones have access to instant messaging such as AIM, the Google phone could have easy access to GTalk. This would help both the phone and IM software. GTalk would mainly be used for communication between phone and PC users, and texting and calling can be used to communicate between phone users.

Google Calendar. While most phones may have built in planner software, the Google phone can take advantage of the already existing Google calendar framework. Furthermore, this allows users to update their calendar with both their phone and their online account from any computer. This way, the calendar is kept up to date easily, as well as working well with other applications like GMail.

Google Docs. Google Docs is a less used application offered by Google that allows document manipulation and viewing. This becomes fairly important in mobile phones due to ability to edit documents while on the go. Also, this ties in with Gmail as you can view attachments with Google Docs. This makes it a great complement to smart phones, and also one that is not vastly offered by competitors.

YouTube. Media access is very important for mobile phones. The largest online video provider is currently YouTube, which is owned by Google. Along with Google Video, Google holds a strong asset here which complements greatly with mobile phones.

Google Translate. Google translate allows for translation between languages. This is particularly useful for travelers that may not know other languages well, which is likely the case for many smart phone users that may visit foreign countries on trips.

Other Google Software and Sites. In general, the Google phone works well with other Google software. It allows for mobile internet usage, which in general benefits Google as people will be visiting Google sites and software. Largely, if the user is a Google fan, they will probably use many Google products with the phone, making easy accessibility

of Google products a must on the Google phone. Google finance and news may particularly benefit from this. Other software may also gain a larger fan base if used.

Fan Base. Google has built up a large fan base over the years as a software provider. Notably for applications such as Gmail and others mentioned above, there are a large number of people who would undergo significant costs in order to use Google's applications as opposed to competing applications. This gives Google a strong advantage in creating a customer base for its phone as many users may buy the phone simply because it is offered by Google. Even more importantly, if Google were to offer some of its applications exclusively on the Google Phone, this would draw even more fans to the phone, as well as possibly users from competitors.

Company Image. Google's current company image is that of a "good company." This mainly means that Google has been cooperative with competitors and done little that hurts their users in order to make more profit. This may largely be due to the fact that Google's revenue is mainly from advertising instead of selling a product. This image can help in selling the Google Phone as it will not seem like the company is trying to profit enormously from its users that other phone companies may have the reputation of doing.

Google's Competitors. In the Smart Phone industry, Google faces some of the competitors below⁷. Also, Nokia is large, but they are largely less branded and "smart" and largely a less related product than those listed below in terms of Google's image.

iPhone. The iPhone is one of the biggest problems for the entrance of the Google phone. Similar in general target audience, both companies have generally been known for high quality and simple design. The iPhone's design is hard to beat, even for Google, and it holds a large part of the market by having a large fan base. However, the iPhone largely targets home users. By targeting small enterprises, Google can find a unique niche to operate within. This will help avoid rivalrous competition with the iPhone, which is likely here to stay because of the large number of loyal customers. Therefore, Google will not have to spend a lot of time and effort to convert customers to their brand, which is not well known in terms of hardware devices. Another similar company is HTC, so we shall largely discuss Apple with respect to both companies. Apple has shown large growth^{2,4,5}.

Windows Mobile. A large competitor of Google, Microsoft may also target a similar audience as Google for their phone, Windows Mobile. Here again, Google must make use of its superior design and user friendliness which Microsoft is not known for. Smaller companies will again not necessarily need the power that Microsoft products are known for and may opt for a phone with easier access to a variety of both business and personal uses. Google can target the audience that normally Apple would target against Microsoft, but does not in the business audience: users that need the newest technology. Google provides software that Microsoft does not as well as having a reputation for high quality and better design.

Palm OS. Palm is a dangerous competitor due to its current troubles⁸, particularly with Apple. Palm and other companies not yet mentioned may begin to see losing profits in the industry and may become desperate and hence dangerous. In terms of target audience, Palm, like Microsoft, is more similar to Google. Both target users that may require the

phone for both business and home use, although Palm seems to be much more over the place in this regard than other companies. With a variety of products, Palm would likely react to any entering party. What Palm is lacking is its own software, so by offering a variety of applications and software, Google can stay ahead of Palm, which relies on other companies such as Microsoft to provide it with software.

Blackberry. The blackberry is a powerful phone targeted towards businesses. Smaller enterprises may not be the main focus of the company, but is still a main concern. What Google must do that Blackberry does not is have a strong design. Smaller enterprises may not be looking for the strongest phone in the industry, but may need more user friendly and diverse phones, and Google is a good company to provide this. Blackberry is not known for sleek design and in general seems to be targeted towards larger corporations.

Target Audiences. Google should attempt to target small enterprises, travelers, foreigners and its current fan base. With its current assets, how does Google properly apply these assets to advance its position in the market? In order to optimally position the Google phone, Google must realize that the phone industry is rivalrous as shown above. Google must use its current assets to position the Google phone properly to avoid entry barriers and keep itself afloat.

With the assets given, it seems that Google should target a group that is constantly traveling and may need lots of software on their phones. The home user is not an ideal candidate for such a product; they do not travel that much and largely only need to use phones for phone calls and messaging. A better target audience would be small enterprises and travelers. The Google phone provides many necessary products that such enterprises will need: Calendar, Email, Documents, Maps and capability for other software. On the other hand, they still have the sleek feel of a casual phone that can vary a lot depending on the use. This way, smaller enterprise employees may use the phones both for business as well as personal use. In the small community, the necessity for extremely powerful devices becomes less and the need for design and user friendliness grows. This makes the Google Phone an ideal candidate for this market.

In terms of how Google's current assets work with this market, let's consider the specific examples. Small enterprises may have many employees who often go out on sales calls or other travel. This makes Google maps a must on their phone. Furthermore, the new tracking service allows the users to easily meet up whenever they must, which in a smaller enterprise is vital due to their potentially hectic, less organized schedules.

Communication between employees becomes more vital in a small company, so Email is an important concern. Gmail is known to be reliable and easy to use and has a large fan base. Organization is also fairly good with GMail and labels.

Calendar becomes more useful as well, as smaller company employees constantly have shifting schedules. In order to accommodate this, calendar can be changed both from the office and on the go with the Google phone, allowing for easier organization, an important part of small enterprises.

Other features such as document viewing as well as finance and news are very important to small enterprises as well, but Google does not offer many advantages in these areas compared to competitors. However, offering the Google phone to such companies may persuade them to use other Google products, perhaps growing a large user base that may eventually become very powerful.

Access to other online work functions can be easily done with the Google phone. The phone provides much of the services given by other competing phones, but offers added advantages in terms of travel and some online data capabilities. Travel and documents is most associated with small companies, making them the ideal target audience.

The Small Enterprise. The small enterprise audience is a good target audience for a company like Google for many reasons.

Travel. In general, small companies do not perform operations in their own office. Therefore, they perform a lot of traveling to other companies in order to do business. Traveling requires mobile devices, and here is where the Google phone comes in. There is a large market for using sophisticated mobile devices on business travel.

Growth. As the small companies grow, if they use the Google phone, they may come to rely on it. Employees that travel often will find it easier to use other Google products if using the Google phone, and begin to use these products. This will create a larger Google fan base. However, as these small companies grow, some will eventually become industry giants. If these companies have many employees devoted to Google products due to the Google phone, this will put Google in a very solid position as large companies are devoted to their products. Furthermore, with the instability of the phone industry, this solid position may be vital for survival. Google is a company that is always looking to create a large fan base, so this is particularly useful, especially as Google is unlikely to go bankrupt in the near future.

Quality. Most small enterprises will be looking for quality devices. Google has a reputation of high quality. Furthermore, compared to companies like Apple, Google has not specifically begun targeting other groups such as home users. Then, Google can be the supplier of high quality products to small enterprises.

Foreign Markets. Google's various products are just one advantage Google controls. Another advantage is its reputation as the best search engine as well as offering numerous other great products. This reputation is fairly large in other parts of the world as well as in the U.S. For example, in Europe, 79% of searches used the Google search engine and the next most used search engine held less than 3% of all searched. The penetration of other brands such as the iPhone¹ is not as deep in other markets. Then, in these markets, Google may actually start ahead of the pack in name recognition. This would be a significant advantage. In addition, other countries may begin to have more growing entrepreneurial spirit, particularly in fast growing parts of Asia³, which would mean more small enterprises that may grow into large companies which Google can use as consumers.

Google Fans. As discussed, there are many customers that are highly devoted to Google products and will likely buy the Google Phone solely because it is produced by Google, especially if various features are found exclusively on the Google Phone.

Cooperation. Keeping in mind this target audience, Google's strategy should mainly target only business and traveling users. This is because the industry, as discussed, supports multiple firms. Then, it should continue to cooperate with other firms, especially

in ways that helps them in the home market. For example, Google should continue cooperating with Apple because starting a competition with them while targeting different audiences is foolish, especially with Microsoft (who is very competitive, targets a more similar audience and is very powerful).

Proposed Positioning Strategy. Google should begin to offer only limited features of its variety of software to its competitors while offering full capabilities of its applications on the Google Phone. This will encourage users who wish to use these applications to use the Google Phone. Furthermore, Google should largely limit only those applications associated with travel in order to draw in its small business target audience as its primary user base.

Google Search Engine. Google's search engine is not significantly superior to other search engines. It is also not specifically useful for any of the target audiences. Also, the search engine is difficult to limit to the Google Phone specifically (except perhaps advanced search options). Therefore, we will not limit the search engine. All other phone companies currently use this technology, and limiting it would be detrimental to the company's image. Also, other search engines would gain more use and be discovered to be not significantly worse. There are no particular advantages for drawing in the target audiences from limiting the search engine either.

Google Maps. Google Maps is vastly superior to other maps software. Also, it is very important for travelers (and hence small businesses). Therefore, we will limit Google Maps until it is only marginally better than other map applications. Namely, this will mean lower resolutions and no street view as well as possibly limited search capability (for local businesses, etc.). Almost all of the other companies use Google Maps. However, the Blackberry offers Blackberry Maps, an alternative to Google Maps. However, due to Google Maps' generally accepted superiority, this should have little effect. We have fairly few limitations; hence it should not vastly decrease the company's image. However, it should increase usage as Google Maps is very important to many people and is the key consideration for most people when they decide they want to buy a smart phone. Then, if the Google Phone offers a significantly superior Google Maps application, they will buy it. With the inclusion of GPS, maps become increasingly important for the mobile user.

GMail. GMail is not particularly superior to other email services, but a large number of Google fans like GMail a lot. This is largely due to things like customizable themes and labels and interface. GMail is also important to businesses as they may need to have access to important memos and emails while on the move. However, limiting full email access from other companies would have poor effect on company image as well as probable large switches to other email providers. Then, one should limit some things that fans enjoy a lot such as themes and labels. This will encourage the fan base to continue using the Google Phone, as well as possibly some business users who have come to rely on GMail's organization tools to use the phone. GMail is currently featured on most phones but is very prominently featured on the Blackberry. This means that full limitations would be disastrous, but by offering GMail, it may limit retaliation to limitations in other applications such as Google Maps and Docs.

GTalk. GTalk is a significantly weaker application in terms of users compared to AIM. It is also largely used for contact from mobile users to PC users as there is no need for

IMing between phone users. GTalk may be used largely by businesses, namely when employees may be on the move and need to contact an employee at the company. Also, GTalk is largely affiliated with the fan base, as AIM is used by non Google fans. Google should fully limit GTalk to the Google Phone because there is little use of the application on other phones. Then, there are limited reprisals for this limitation. Furthermore, users would not likely be annoyed from this lack of offering as it is not a highly coveted application. However, it does target the right audiences and helps in networking; people may start to use Google Phones more if they want to talk to others using GTalk and it is only offered on the Google Phone. Because AIM is not affiliated with any of the other companies, it will not likely begin to have limited offering, not creating networking for other competitors. Although the limitation of GTalk will not strongly help the Google Phone, there are few problems with limiting it because competitors would not care much about it, while by limiting it, it may be one of a few small things that pushes target customers towards the Google Phone.

Google Calendar. Google Calendar is very useful for travelers, especially from small businesses, that need to organize meetings with suppliers, buyers and other firms. Because it is connected to the Google Framework, this becomes a very useful organization tool to people who are constantly traveling or have busy schedules. Because of this, this should be offered similarly to other applications. The limitations with calendar largely come with other applications, so we do not limit the feature. Then, when users may become accustomed with Calendar, they may realize that other Google features, that may be limited on their current phone, are very useful especially with Calendar (GMail for example can note when you have events on your Calendar, etc.) and switch users into the Google fan base.

Google Docs. Google Docs is very useful for small businesses. Users can edit and read documents while traveling and away from the computer. Google Docs is largely used to view attachments received by GMail. There are limited similar products on other phones currently, and Google Docs is not currently largely featured by other phones. Then, a trial version of Google Docs can be given to other phones. If this is rejected, a version that only allows document reading can be given. Then, users can still access files given by GMail, but may realize that Google Docs is a useful tool on phones to slightly edit some of these files, but with only full capabilities on the Google Phone, may be persuasive in switching services. It is also very useful for the target audience and not widely offered by other phones, meaning there is limited effect on company image. Docs should be offered in such a way that one can share documents between different phone users, but editing can be only done on the Google Phone. Then, this creates a network effect as more users begin to share documents with Google Docs, more will realize the necessity of the Google Phone to edit such documents.

YouTube. YouTube is mainly used by home users, so does not specifically target the right audience. Furthermore, it is likely separately managed. There is also limited ability to reduce capabilities of users. Media access is also fairly easy to obtain on other sites. Then, there is no reason to limit YouTube as limitations may be bad for corporate image and does not target the small business audience.

Other Google Software and Sites. Other Google software that is not largely used by other phones can be offered on the Google Phone exclusively to make small reasons why the phone is superior. However, sites like Google Finance should continue to be easily

accessed by other phones. Some software that may grow to be nice applications found only on the Google Phone could include Picasso and SketchUp. These may be small things that can gain a few customers for Google while not hurting its reputation or creating large reactions from competitors (because they are not prominently featured by competitors in the first place).

Reactions of Competitors and Proposed Counter reactions. With this reduction in Google's software availability on other phones, its competitors may react adversely to this new strategy. However, for most of the changes above, we note that there is little likely specific reaction to any of the limitations that would be beneficial for its competitors. Here, we take a closer look at possible reactions for each competitor.

Apple. As most of the proposed actions will not greatly impact the casual user, Apple is unlikely to react aggressively to these software limitations. However a possible reaction is to team up with somebody like Yahoo, who offers software products similar to Google's, as a reaction to Google's move towards exclusivity for the GPhone. However since a limited Google Maps will still be an important feature for them to risk losing, this seems unlikely to occur. As discussed above, most features being limited had limited use, particularly for home users, so Apple would likely not care much.

Google may want to consider increasing its cooperation with Apple, because if Google does survive, it may need to contend with them for a long time in the market. More importantly, with Microsoft targeting a more similar audience and being a competitive company, Google does not want to face Apple, which has recently shown large growth and a strong fan base, in this market. If Apple were to reject certain applications due to the new limitations, Google should probably weaken the limitations carefully in order to cooperate with Apple, which has also shown large growth^{2,4,5}.

Microsoft. The most likely, if any, reaction to any moves by Google would be to attempt to limit Google's sales and thus its networking and growth potential in the market. The most obvious way to do this would be through a price cut in response to the software changes, especially temporarily during the possible publicity period. However, due to weak bargaining power of firms offering OS for phones and little effect of price, this would not be that effective. Then, Microsoft may offer other products similar to those of Google's in order to replace the limited features. However, the limitations are low, and for features like Google Maps, there are few other options to choose from. For other features such as GMail, the limitations are targeted towards Google fans anyway who would not be targeted by Microsoft in any case. Hence, Microsoft sees little reason to reject Google products merely for retaliation.

In the case that Microsoft rejects Google applications, Google's response should be to continue offering limited applications. Because of the reasons above, any rejection of Google services would likely only hurt Microsoft. Because Microsoft targets a more similar audience with Google, Google can gain the advantage on them if they were to reject Google products and hence lose a large number of users. This may weaken some products usage such as Docs or Calendar, but most of these weaker products that may be rejected saw little use previously.

Palm. Being in a weak position in the market^{4,8}, Palm may act unpredictably with more desperate moves to maintain/gain market share. However its options are fairly limited by

its weak product position (targeting a large spread between home and business users) and the most likely reaction, if any, is a price reduction or full aggressiveness with Google. Otherwise, its reactions would be similar to Microsoft's as the two companies cooperate to a degree (Palm uses the Windows OS sometimes) and target similar audiences.

Research in Motion. As the BlackBerry is aimed at the same market, the greatest reactions should be expected from Research in Motion. It is possible they will reject the "limited" versions of the products, and use their own products – i.e. what BlackBerry Maps does already. This would be a bid to block Google's attempt at converting some of its user base. While Microsoft and Palm may lose out significantly were they to reject Google products, the BlackBerry would be at less of a disadvantage because they already offer a large number of software created by themselves.

This would be an unfortunate outcome, although it would not be devastating, because Google doesn't need BlackBerry or any other smart phone to display the merits of many of its products. Blackberrys are unlikely to network Google more users anyway. Rather this may simply lead to new customers to more strongly consider the GPhone if they are already fans of Google, whilst essentially achieving what Google may want to do with BlackBerry anyway – deny its software assets – without looking like an "evil corporation". Blackberry's large growth^{4,5} however means Google should be careful.

Such actions would best be followed up by emphasis on Google's assets that beat the BlackBerry's features when targeting small businesses. Blackberry does target a slightly different audience (larger corporations), which means less likelihood of retaliation. Were they to reject the limited Google Maps, Google should lift some of the limitations, hoping they would realize that Blackberry Maps is significantly inferior. However, Blackberry would likely cooperate due to its current large emphasis on Gmail.

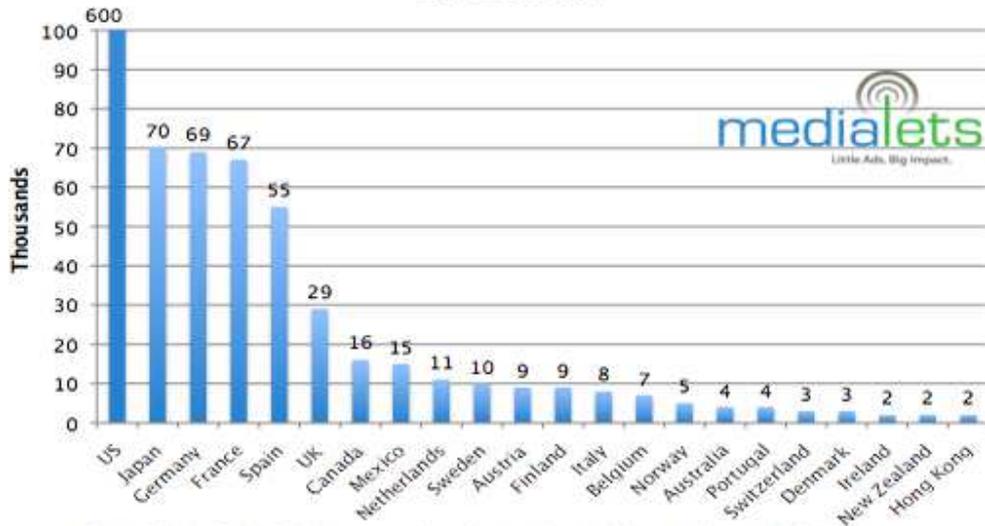
Specifically for Google Docs, because it is relatively less used currently, other phones may reject the limited capabilities for fear that users switch to the Google Phone. However, were one of the above companies to accept such a limited version, other companies may largely lose out. Then, without collusion among the competitors, they face a dilemma where accepting such a feature may be beneficial. Because Docs is not currently largely prominent, they may be willing to take this risk and cooperate with Google as few other software of this kind exists and it works well with Gmail.

Limitations. This strategy has a few limitations. The largest is that there is not significant limitations between what is offered to Google users and other users. The main objective is to offer a large number of small benefits particularly for small enterprises and travelers. Another limitation is that Google has thus far not offered a real product. With the release of the phone and this proposed competitive strategy, it may give Google a worse company image; that is Google may start to look like an evil corporation that fights dirty to win. However, with the rivalrous nature of the Smart Phone industry, Google has to take some risks in order to stay afloat and this strategy allows it to differentiate itself from competitors as well as offer some very important features with higher quality than competitors. One final limitation is that the other companies may begin to boycott Google products, which would largely hurt Google in other areas, but as discussed, this is not highly likely.

Appendix. Below are some items that show evidence of some of the facts shown above with brief descriptions.

1) Apple largely not targeted towards foreign markets

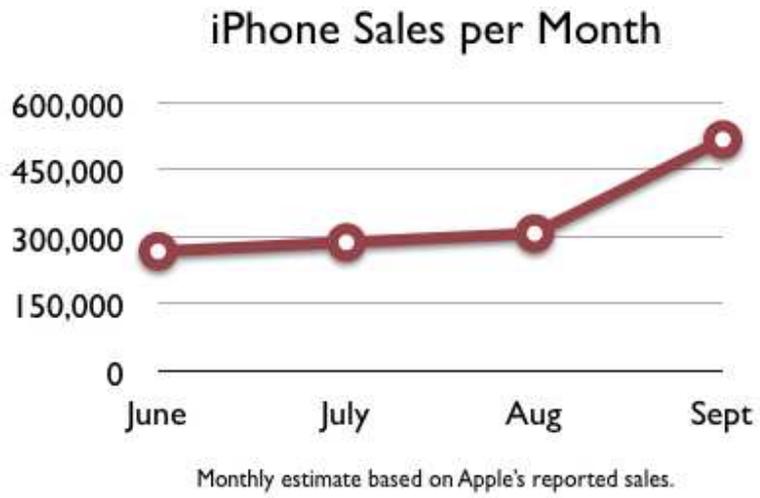
Breakdown of the First 1 Million 3G iPhones Sold By Country



Source: Goldman Sachs Global Investment Research, *Americas Technology: Hardware*, July 21, 2008.

<http://www.amitbhawani.com/Images/A/Apple-iPhone-Sales-Graph.png>

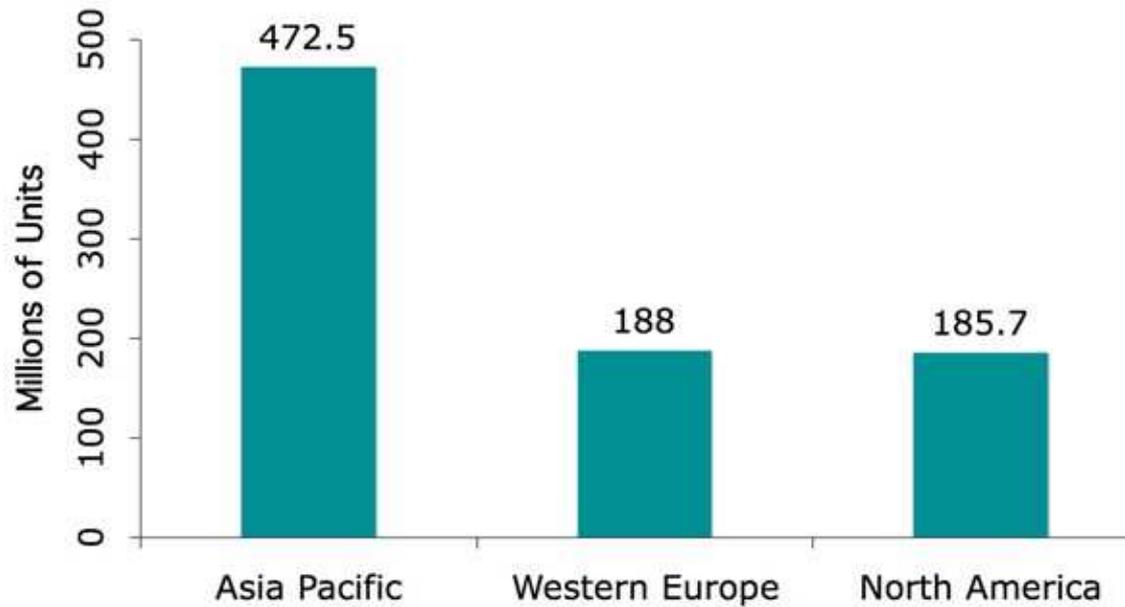
2) iPhone sales have increased



<http://www.roughlydrafted.com/wp-content/uploads/2007/11/200711211606.jpg>

3) Foreign market is important

Mobile Phone Sales Forecast 2008 (Millions of Units)



Source: MarketingCharts.com
Data from Gartner, Inc.

http://static.seekingalpha.com/uploads/2008/9/5/saupload_gartner_mobile_phone_sales_forecast_august_2008.jpg

4) Apple has shown large growth, RIM fairly large as well, Palm not even shown, good for HTC

Worldwide smart phone market Market shares Q3 2008, Q3 2007					
Vendor	Q3 2008 shipments	% share	Q3 2007 shipments	% share	Growth Q3'08/Q3'07
Total	39,850,100	100.0%	31,156,240	100.0%	27.9%
Nokia	15,485,690	38.9%	16,025,690	51.4%	-3.4%
Apple	6,899,010	17.3%	1,107,460	3.6%	523.0%
RIM	6,051,730	15.2%	3,298,090	10.6%	83.5%
Motorola	2,313,930	5.8%	2,058,500	6.6%	12.4%
HTC	2,308,210	5.8%	850,400	2.7%	171.4%
Others	6,791,530	17.0%	7,816,100	25.1%	-13.1%

Source: Canals estimates, © canals.com ltd. 2008

<http://www.palminfocenter.com/images/smartphone-sales-q3-2008.jpg>

Again, large growth for RIM, and HTC, not much for others

Company	Q208 Sales	Q208 Market Share (%)	Q207 Sales	Q207 Market Share (%)	Q208-2Q07 Growth (%)
Nokia	15,297,900	47.5	14,151,689	50.8	8.1
Research In Motion	5,594,159	17.4	2,471,200	8.9	126.4
HTC	1,330,825	4.1	605,900	2.2	119.6
Sharp	1,328,090	4.1	2,275,401	8.2	-41.6
Fujitsu	1,071,490	3.3	877,955	3.2	22.0
Others	7,598,711	23.6	7,472,441	26.8	1.7
Total	32,221,175	100.0	27,854,586	100.0	15.7

Source: Gartner. Note: Under the name HTC, Gartner counts only the company's own-branded devices. The devices that HTC designs for mobile operators are shown separately under the operators' names in these statistics.
Source: Gartner (August 2008)

<http://www.wirelessweek.com/uploadedImages/WW/articles/1108-Smartphone-Sales.gif>

5) More growth: again, RIM high, Apple High. Here, we note others are low, although Microsoft has some growth. Palm OS is OK, but shows low sales numbers overall compared to the rest (and low market share) despite having existed for many years. Note: Symbian is related to Nokia

Table 2
Worldwide: Preliminary Smartphone Sales to End Users by Operating System, 2Q08 (Units)

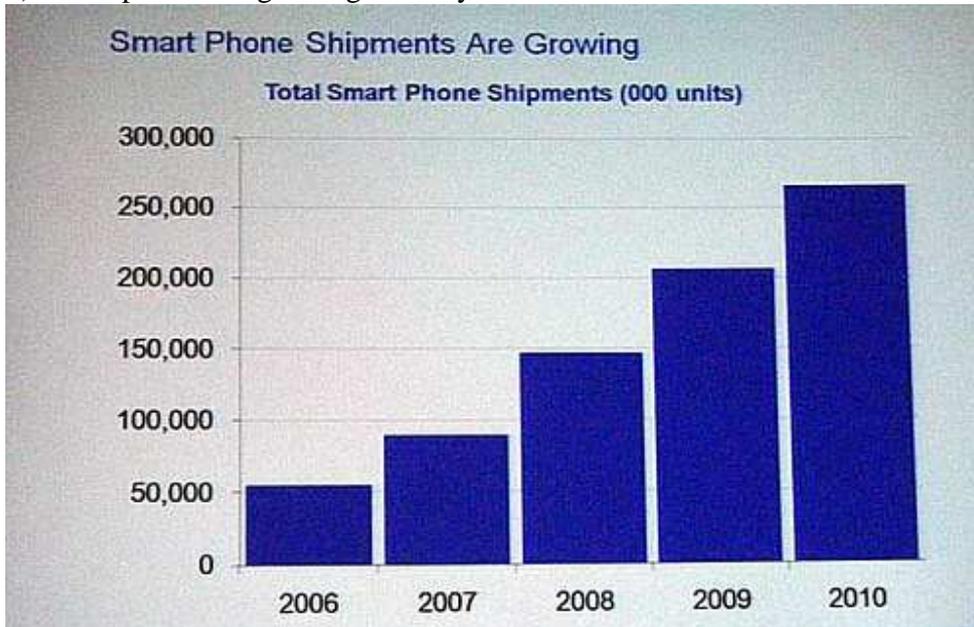
Company	2Q08 Sales	2Q08 Market Share (%)	2Q07 Sales	2Q07 Market Share (%)	2Q08- 2Q07 Market Growth (%)
Symbian	18,405,057	57.1	18,273,255	65.6	0.7
Research In Motion	5,594,159	17.4	2,471,200	8.9	126.4
Microsoft Windows Mobile	3,873,622	12.0	3,212,222	11.5	20.6
Linux	2,359,245	7.3	2,816,490	10.1	-16.2
Mac OS X	892,503	2.8	270,000	1.0	230.6
Palm OS	743,910	2.3	461,918	1.7	61.0
Others	352,679	1.1	349,501	1.3	0.9
Total	32,221,175	100.0	27,854,586	100.0	15.7

Note: The "Others" category includes sales of Sharp Sidekick devices based on the Danger platform.

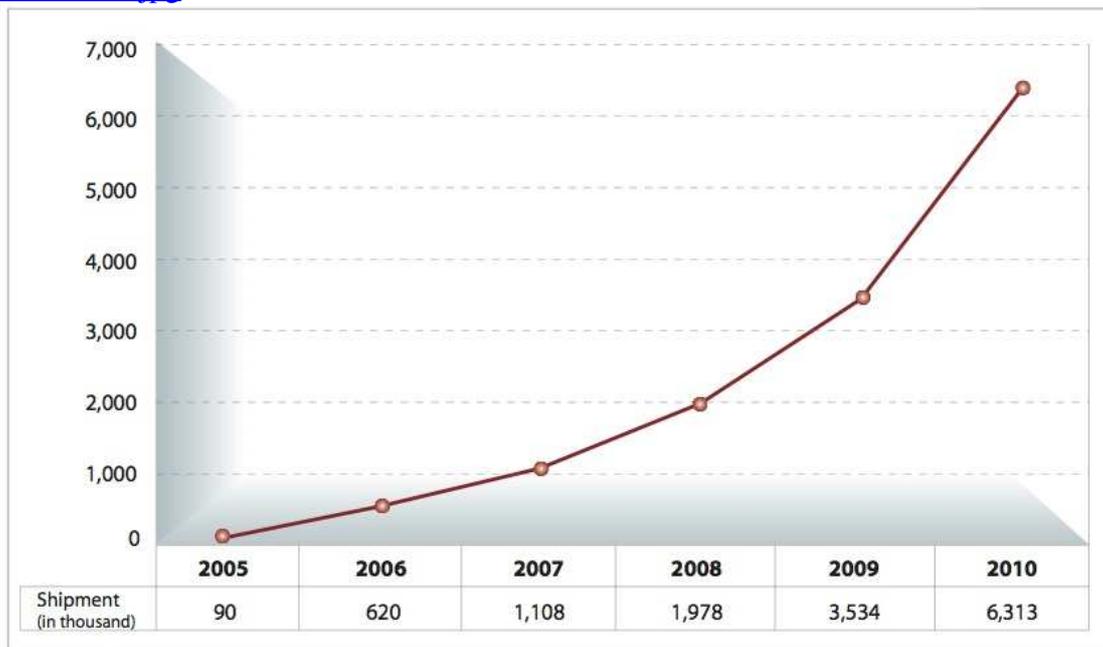
Source: Gartner (August 2008)

http://asia.cnet.com/i/r/2008/crave/hp/63006342/smartphonesales_sc.jpg

6) Smart phone is a growing industry

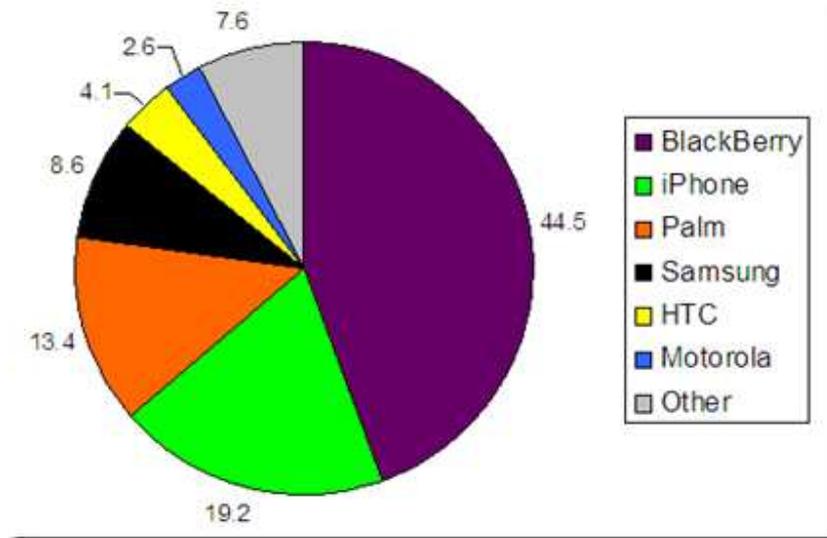


<http://www.missphones.co.uk/wp-content/uploads/2008/12/analysis-of-smartphone-sales-worldwide.jpg>



http://www.windowsfordevices.com/files/misc/researchandmarkets_smartphone_for_ecast.jpg

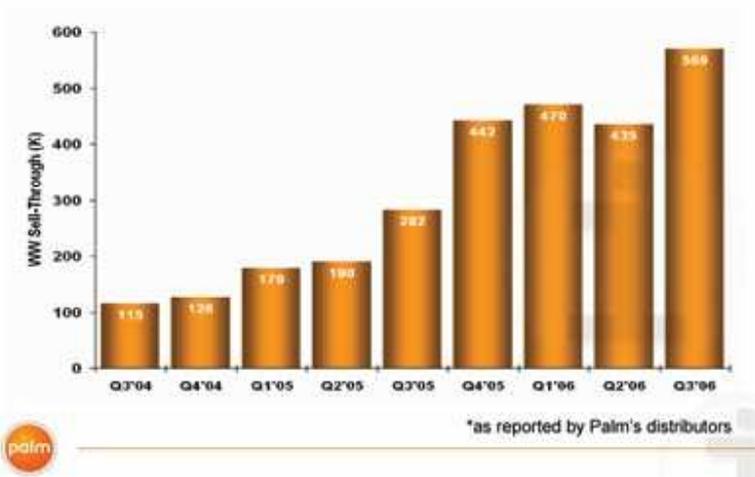
7) Percentage of users for smart phones (the three competitors we talk about besides Microsoft are the largest).



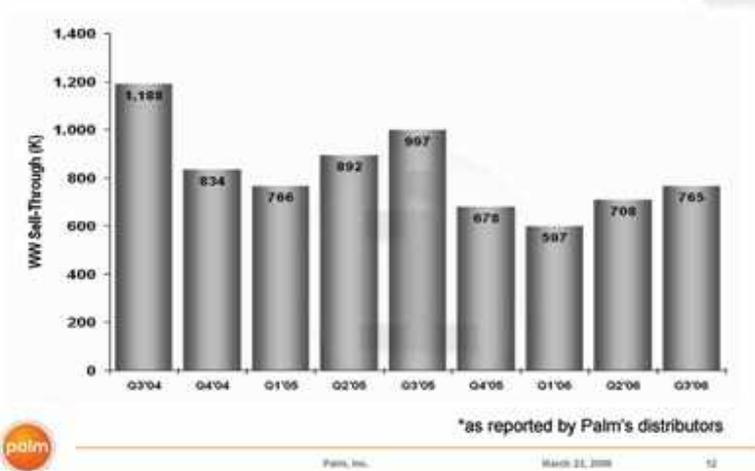
<http://justanothermobilemonday.com/WordPress/wp-content/uploads/2008/05/image26.png>

8) Palm growth: does show growth, but relatively low compared to iPhone for example, and no growth for non smart phones, demonstrating weakness in company.

Smartphone Sell-Through*



Handheld Sell-Through*



<http://www.palminfocenter.com/images/palm-treo-sales.jpg>