eBay and Google: A Coopetition Perspective

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Abstract

When we originally undertook this project in December 2005 we set out to analyze eBay and Google's historical, current, and future relationship and make recommendations based on our research. Much has transpired since the outset of the project including front page *Wall Street Journal* articles on the subject and an extensive eBay and Yahoo partnership formed. The paper now best serves as a rationale for the recent actions taken by eBay.

eBay and Google historically have been known for auctions and search, respectively. In the past, there has been little overlap in terms of products, customers, or business models. Yet, the companies have developed dependencies on each other as Google is one of eBay's largest sources of user traffic and eBay is one of Google's largest customers.

As the two most successful Internet companies with impressive growth rates and profit margins, the companies have set investors' expectations high. Thus, the corresponding stock valuations of the companies have tremendous growth expectations built into the price – 35% for eBay and 65% for Google over the next 5 years – while maintaining lofty margins. To meet these expectations, eBay and Google must assess new markets to enter and, as they begin to encroach on each other's turf, determine what form their relationship should take. There is a risk this increased competition will put pressure on margins. If this happens, the corresponding increase to the already lofty revenue growth expectations possibly makes the growth unattainable.

The two companies take very different approaches to their growth strategy. eBay makes few, large investments in carefully calculated markets that strengthen their core

competency. On the other hand, Google makes many, small investments in product development and "sees what sticks" before investing heavily into sales and marketing. Google's different approach, their stronger position to threaten eBay's core businesses, and the fact they are less dependent on eBay than eBay is on Google has created an imbalance of power. Thus, eBay would be wise to strike a deep partnership with Yahoo or Microsoft in order to regain a balance of power in the industry.

The future relationship of the two companies is quite complex. Both companies have short-term incentive to continue their existing relationship. However, in the future there will be a spectrum of levels of competition between the companies, from cooperation to fierce competition. In general, the companies should avoid attacking each others' core businesses (search and auctions) in order to avoid mutual margin pressure. However, in nascent, yet large potential markets such as classifieds, traditional media advertising auctions, mobile, and China, the companies should aggressively compete to become the category leader.

1. Defining the Business Problem

Key Initial Facts

As of today, EBay and Google can arguably be considered the two most successful business models on the internet. Since their incorporation, 1995 for EBay and 1998 for Google, both companies, experienced unprecedented revenue growth, very rapid profitability and dominance in their original markets. They both created brand new business models that share some characteristics.

Similarities in the Financials of the Two Companies

Table 1.1 highlights the main financial metrics for 2006 for both eBay and Google.

Table 1.1

EBAY		GOOGLE	
Profitability		**Profitability**	
Profit Margin (ttm):	23.77%	Profit Margin (ttm):	23.87%
Operating Margin (ttm):	31.67%	Operating Margin (ttm):	34.69%
Management Effectiveness		**Management Effectiveness**	
Return on Assets (ttm):	9.11%	Return on Assets (ttm):	21.44%
Return on Equity (ttm):	12.90%	Return on Equity (ttm):	23.74%
Income Statement		**Income Statement**	
Revenue (ttm):	4.55	Revenue (ttm):	6.14
Revenue Per Share (ttm):	3.343	Revenue Per Share (ttm):	22.254
Qtrly Revenue Growth (yoy):	42.00%	Qtrly Revenue Growth (yoy):	86.00%
Gross Profit (ttm):	3.73B	Gross Profit (ttm):	3.56B
EBITDA (ttm):	1.82B	EBITDA (ttm):	2.62B
Net Income Avl to Common (ttm):	1.08B	Net Income Avl to Common (ttm):	1.47B
Diluted EPS (ttm):	0.78	Diluted EPS (ttm):	5.02
Qtrly Earnings Growth (yoy):	36.00%	Qtrly Earnings Growth (yoy):	82.40%
Balance Sheet		**Balance Sheet**	
Total Cash (mrq):	2.09B	Total Cash (mrq):	8.03B
Total Cash Per Share (mrq):	1.484	Total Cash Per Share (mrq):	27.03
Total Debt (mrq):	0	Total Debt (mrq):	0
Total Debt/Equity (mrq):	0	Total Debt/Equity (mrq):	0
Current Ratio (mrq):	2.144	Current Ratio (mrq):	12.076
Book Value Per Share (mrq):	7.156	Book Value Per Share (mrq):	32.144001
Cash Flow Statement		**Cash Flow Statement**	
Operating Cash Flow (ttm):	2.01B	Operating Cash Flow (ttm):	2.46B
Levered Free Cash Flow (ttm):	1.14B	Levered Free Cash Flow (ttm):	911.21M
Share Statistics		**Share Statistics**	
Average Volume (3 month)3:	12,669,200	Average Volume (3 month)3:	14,250,300
Average Volume (10 day)3:	10,235,100	Average Volume (10 day)3:	10,471,500
Shares Outstanding:	1.41B	Shares Outstanding:	297.24M
% Held by Insiders4:	17.50%	% Held by Insiders4:	29.36%
% Held by Institutions4:	62.40%	% Held by Institutions4:	37.90%

Source: Yahoo Finance

As of 2005, the two businesses are of comparable size in terms of revenue. They have some key financial attributes in common:

Strong and comparable profit margins and strong cash generation. Both companies operate very profitable business models. In 2006, they reported respectively 23.7 and 23.8% profit margins, well ahead of most players in the respective field. Both companies generated approximately $1 billion of free cash flow in 2006.

Very strong market share in their respective core markets, search and Ecommerce. In March 2006, Google was estimated to have approximately 43% of the search market, well ahead of Yahoo and MSN. On the eCommerce market, eBay claims to have a 14% total market share in 2005, once again well ahead of the closest competitors Amazon.com, with approximately 5% of total ecommerce.

Great Brand Awareness in their respective field. One measure of both companies' success is captured by the incredible brand awareness enjoyed by both companies as can be seen in figures 1.1 and 1.2.

Figure 1.1: Most Prominent Brands Online

1 - Microsoft
2 - Google
3 - Yahoo
4 - Sony
5 – HP

Source: Envisiona

Figure 1.2: Most Popular Brands Online

1 - eBay
2 - HP
3 - Dell
4 - Mini
5 – UPS

Source: Envisiona

All those measures of success are captured in both eBay and Google's current valuation and high P/E ratios (42 for eBay, 67 for Google as May 11, 2006). Along their recent history, their initial success allowed both companies to pursue aggressive investment and acquisition strategies. Main examples are the acquisitions by eBay of PayPal for $1.5 billion in 2002, Skype for up to $3.9 billion in 2005, and Shopping.com for $635m in 2005. Recently, Google made numerous smaller scales acquisitions, such as Keyhole in 2004.

Differences between Both Companies

Culture

Although both companies were founded by technologists, their current cultures are somewhat different. eBay is a large company managed by experienced business savvy managers. For example, Meg Whitman spent a significant portion of her pre-eBay career in consulting and large consumer products firms. She surrounded herself with a staff of experienced managers, many of them having past consulting experience. As an illustration of this, eBay is often referred to as a tech company run by business people. Conversely, Google is a technology company run by engineers, where technology is key. Its 2 founders are still running the company, leaving their footprint in most of the critical decisions the company makes. A fundamental difference between both companies also comes from the distribution of its equity. Insiders still own around 30% of Google, while only 17.50% of eBay. Conversely, institutional investors own 62% of eBay and 38% of Google. Overall, the management of both companies has very different constituencies. To many observers, eBay is considered a more mature company. In contrast, Google is still managed like a (VERY BIG) start up, driven by innovation, and leveraged by a very

successful business model. The difference in culture will have implications as we consider the possible next moves for both companies.

Different Approaches to Innovation and Market Entry

One of the main differences between the companies lies in their approach to entering new markets. Google prides itself in its entrepreneurial culture and its ability to launch multiple products under very strict deadlines. Google's philosophy is to test multiple markets, potentially launch imperfect products, gain better understanding of the markets and then potentially reinvest further. Its product portfolio includes a wide variety of products, among which some experienced great success (Google Maps, Google Mail) and some had limited impact so far (Froogle). Overall Google operates by betting on a large number of potential markets at the same time, with reasonable amounts to invest. For example, apart from the investment in AOL for strategic reasons, Google never made any major and very expensive acquisitions.

eBay uses a very different approach to market entry. To date, eBay has made a few very significant moves into new markets. However, all decisions to enter new markets had to meet several criteria: First eBay had to feel it could be either number one or two on this market. Even more importantly, eBay had to be convinced the investment would enrich its core marketplace activity. This philosophy of a small number of very well thought-out large bets, very evident in eBay analyst presentations, led to the acquisitions of PayPal, Shopping.com and, most recently, Skype.[1] PayPal is now a significant source of current eBay revenue as well as future growth. Shopping.com is strategically important as a source of user traffic for eBay.

[1] eBay also made a series of smaller scale investment in new markets, such as Craigslist, ChannelAdvisor and meetup.com

In the future, these different approaches to product launches and market entry will most likely have implications on their decisions to enter new markets.

Figure 1.3: Revenue and Earnings growth patterns – Momentum

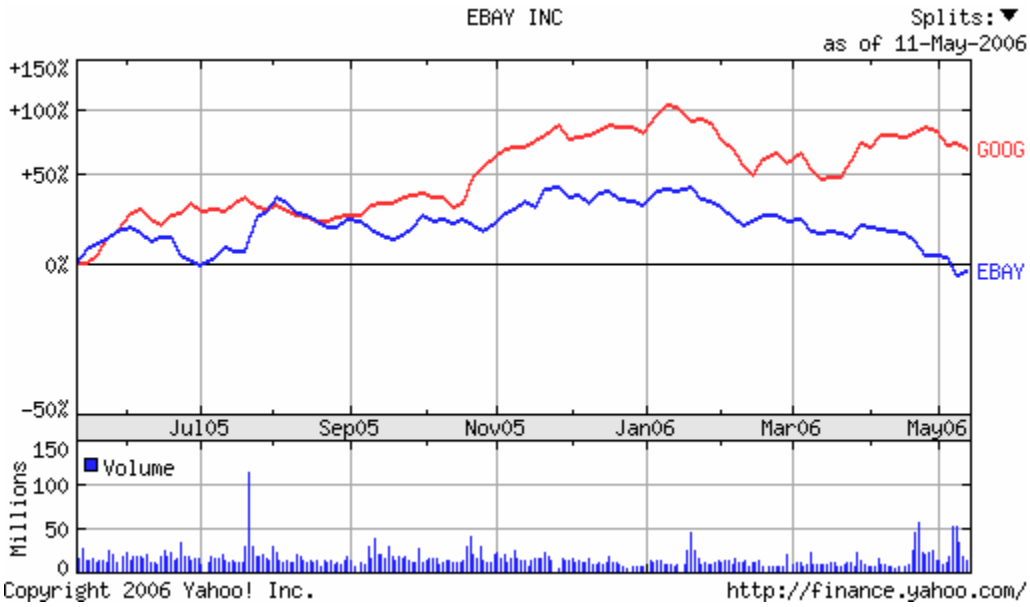
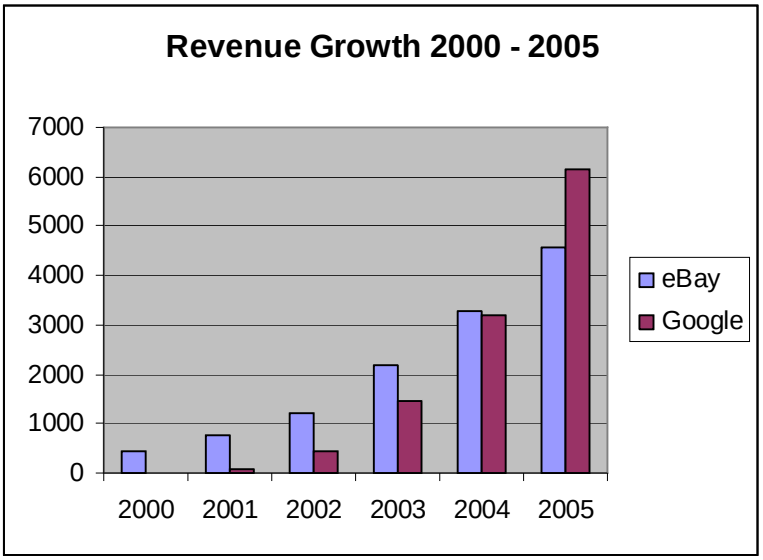


Figure 1.3 summarizes the evolution of both stock prices in the last year. Google outperformed eBay by a significant factor.

Some financial data can support the hype advantage Google has built over eBay. Since its IPO in 2005, Google has outperformed most analysts' expectations. Most impressively, as Figure 1.4 shows, their sales performance has been phenomenal to this point in absolute terms, and even more so compared to eBay.

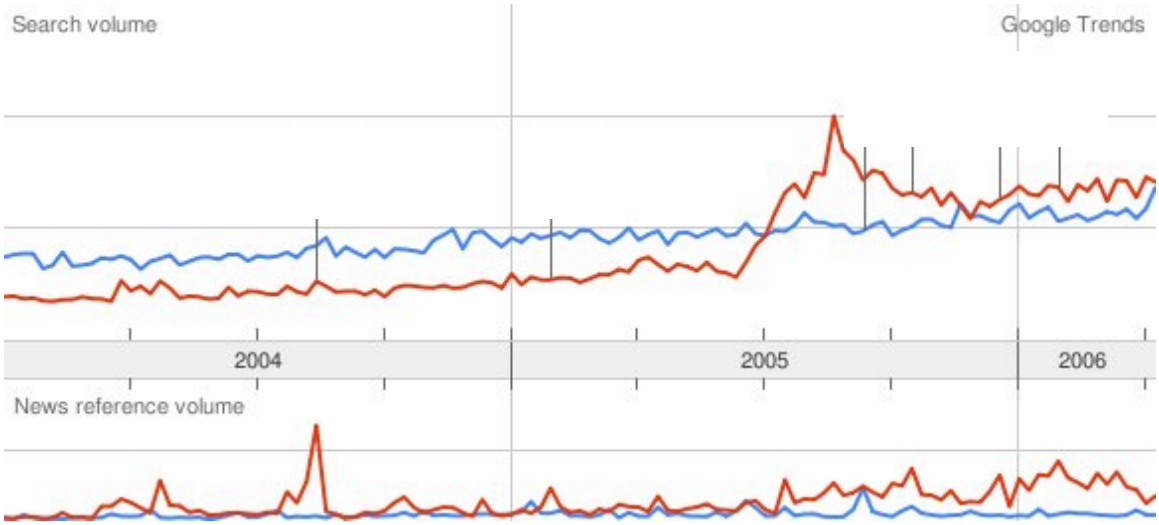
Figure 1.4: Revenue Growth



Source: Yahoo! Finance

In the eyes of many analysts, Google represents the most successful technology company at this point. Conversely, eBay is struggling to convince investors that it will continue to generate a significant top line growth, while maintaining the same very high profit margins. As we are writing this research paper, the overall momentum behind the companies is very different. Most stories on Google refer to the threat Google represents to Microsoft, Yahoo, or eBay. Analysts reacted well to Eric Schmidt, CEO of Google, declaring he was working at creating a $100 billion company. Very few stories cover the threat Google faces from major players such as Microsoft and Yahoo. Another indicator is the volume of searches run on both companies that shows how much interest Google has drawn in the last year. Figure 1.5 illustrates this with the red trend line representing Google and the blue trend line representing eBay.

Figure 1.5: Google and eBay Keyword Search Trend



Source: Google Trends

Based on these initial facts, we tried to better understand the current relationship between the two companies, and most importantly answer the following questions:

- How to define the current relationship?
- Where do they currently compete, serve and complement each other?
- What are their competitive positions in the markets they operate in?
- What are the most attractive new markets for them to enter in the near future?
- How will their future moves change their relationship?
- Who will ultimately prevail?

2. Current Relationship

eBay and Google's historical relationship has largely been cooperative. eBay was synonymous with auctions and Google was synonymous with search. There was no

overlap in products, customers, or business models. On the contrary, the two companies facilitated each others' growth as Google drove significant traffic to eBay and eBay became one of Google's largest customers. This relationship has created significant dependencies between the two companies.

Today, eBay and Google are faced with tremendous demands for growth, leading them to expand into new markets where there is overlap in products, customers, and business models. The two companies are on the cusp of a huge battle to win the hearts of users and customers alike. This presents a challenging situation to the companies given their past cozy relationship and current dependencies on each other.

Cooperation Created Dependency

eBay has used Google's search and search marketing capabilities as a means of attracting buyers to its web site. To a much lesser extent, Google's Froogle shopping web site, which has inventory supplied by eBay, drives traffic to eBay. In sum, Google has become one of the leading sources of visitors to the eBay site. We estimate 12% of eBay's traffic comes from Google[2]. This serves as a proxy of the proportion of eBay's revenues that are dependent on Google.

Since Google has become such a valuable source of traffic for eBay, one of the largest web sites, it stands to reason eBay is one of Google's largest customers. eBay spent $1,230 million on sales & marketing in 2005. Fifty-three percent of eBay's 2004 sales & marketing budget was spent on advertising with 62% allocated to online advertising[3]. This is consistent with a leading analyst's conclusion[4]. Therefore, we

[2] Hitwise reports 11.18% of walmart.com's traffic comes from Google, an e-commerce company comparable to eBay. http://weblogs.hitwise.com/leeann-prescott/2005/11/walmart_google_and_comparison.html
[3] See Exhibit A in Appendix

estimate eBay spent approximately $400 million in online advertising in 2005, a figure consistent with a recent *Wall Street Journal* article[5]. Given Google represents half of total online advertising revenues[6], it is reasonable to assume Google represents half of eBay's online marketing spend, or $200 million. This corresponds to 3% of Google's 2005 revenues.

A conclusion is that eBay is more dependent on Google because a substantially higher percentage of their revenue, estimated at 12%, is dependent on Google versus an estimated 3% of Google's revenues dependent on eBay. Still, it would be harmful to Google to lose the eBay business. First, Google would stand to lose approximately $300 million of revenue in 2006. Second, Google would face stiff scrutiny in the media and on Wall Street because of the recent developments with AOL, Amazon, and possibly eBay. Google had to invest one billion dollars in AOL in order to stave off Microsoft from stealing them away as a customer. Even more recently, Amazon switched from using Google as the search engine for their web properties to Microsoft.

Emerging Competition

During the past year Google and eBay have made acquisitions and introduced new products that clearly place them in direct competition with each other. Table 2.1 shows the emerging areas where the companies will compete. Of these, product search is the only area the companies have been competing for any substantial amount of time. eBay is clearly the leader in product search as ebay.com is of course a leading destination

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[4] Mary Meeker, Morgan Stanley analyst covering eBay and Google, estimates 62% of eBay's advertising budget is online. http://news.com.com/Morgan+Stanley+analyst+bullish+on+Net+advertising/2100-1024_3-5683890.html

[5] WSJ approximates eBay's online marketing spend at $400 million. "To Compete or Cooperate," by Mylene Mangalindan, May 1, 2006

[6] eMarketer estimates total market size at $12.9B and Google's revenues represent approximately half of this

in its own right, and shopping.com is one of the top two shopping comparison sites. Froogle, on the other hand, has only had marginal success since its introduction and Google Base was just recently introduced.

Table 2.1

Market	**Google**	**eBay**
Classifieds	Google Base	Craigslist, Kijiji
Product search	Froogle, Google Base	Shopping.com, eBay
Payments	Forthcoming	PayPal
Communications	Gmail/Talk	Skype

Source: team analysis

A more meaningful way to demonstrate how the companies currently compete is to look through the eyes of a seller. One option of course is to sell your goods on eBay. An alternative though is to create a store (web site) and use Google ads to drive traffic to your store. The latter alternative is attractive to sellers as by some estimates it provides a more cost efficient channel[7]. The momentum is clearly in favor of Google (and, generally, search engines) as 2005 saw a 28% increase in search engine-driven visits to shopping web sites[8]. In fact, eBay itself concedes this trend in their most recent analyst presentation. Figure 2.1 contains a diagram that illustrates the trend from buyers going to eBay to shop to buyers using a search engine to find sellers' stores (not necessarily hosted by ebay.com).

[7] "EBay battles Google for control of the Net," Bambi Francisco Net Sense
[8] Hitwise, Jan 12, 2006

Figure 2.1

Source: eBay May 2006 analyst presentation

Different Customer Bases

eBay and Google currently have very different customer bases. "Customer" refers to Google's advertisers and to eBay's sellers (distinct from Google users and eBay buyers).

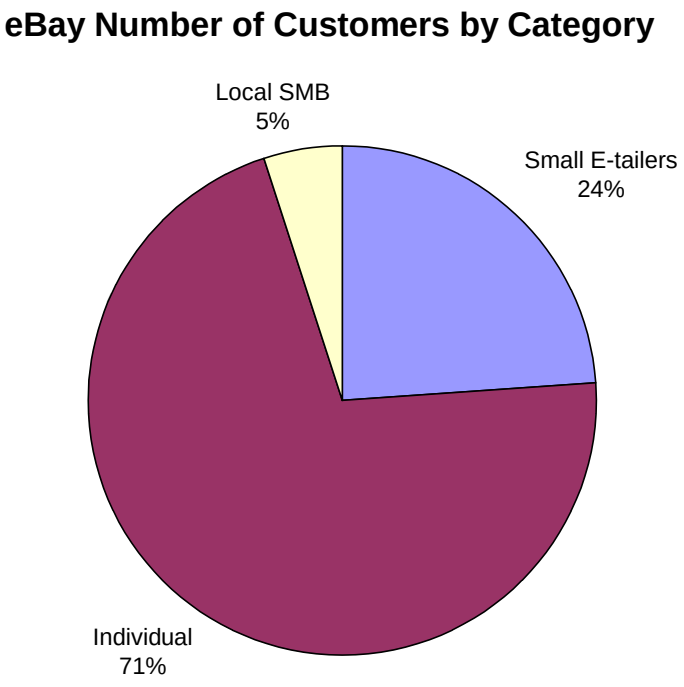
eBay's customers can be characterized by merchants selling *products*. eBay's customers, by number (not revenue), are largely individuals, or sole proprietors. Figure 2.2 shows an estimation that nearly ¾ of eBay's customers are sole proprietors (for an explanation of the process used to derive the data represented in figures 2.2 and 2.3, please see Exhibit C in the Appendix).

Google's customer base is much broader and diverse than eBay's. In addition to companies selling products, Google's customer base includes shopping comparison sites,

content sites (vertical content relevant to the keyword query), big brand retailers such as eBay and Amazon, product manufacturers, and even marketing promotional services such as coupon sites. Figure 2.3 shows an estimation for Google customer breakdown, by number of advertisers (Note: these data were collected based on example queries from eBay's top 8 product categories plus 1 service category, so it is skewed toward product-based advertisers). Additionally, Google has very few individuals or sole proprietors as advertisers.

In summary, there is very little overlap between eBay and Google's current customer base. As the two companies vie for similar markets in the future, their existing customer bases will prove to be a key asset to determine market share and profit margins for each company.

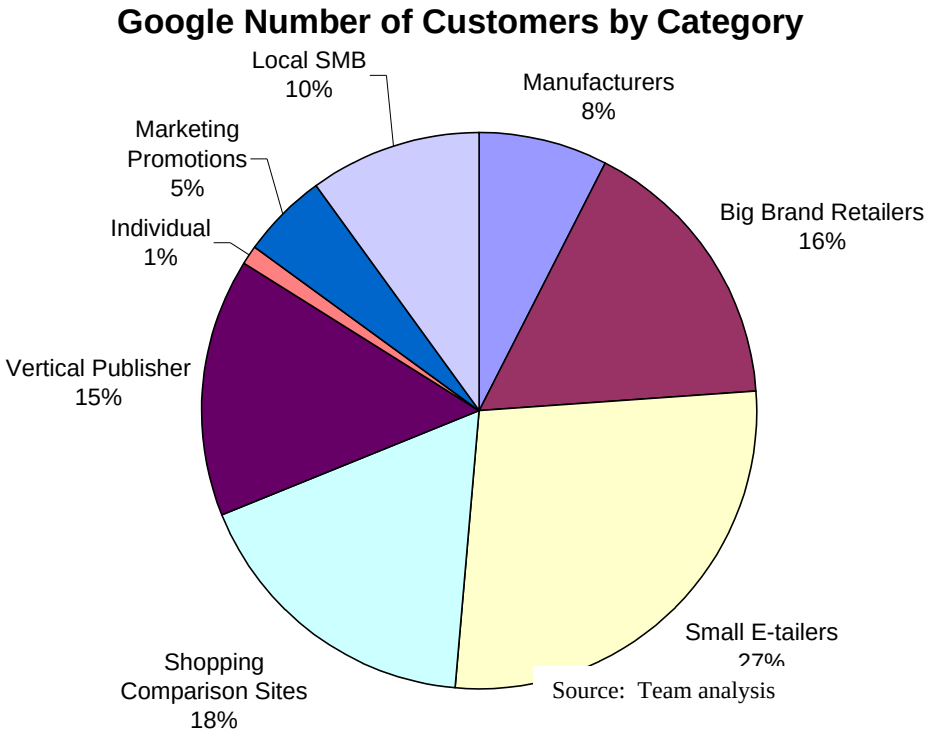
Figure 2.2



Source: Team analysis

Source: team analysis

Figure 2.3



Source: team analysis

3. Financial Analysis

=> What numbers do they have to hit to support their valuation?

Our approach: we reviewed eBay's current valuation using a traditional Discounted Cash Flow valuation method. We did not use valuation methods based on multiple in order to focus on the core financial projections built into the current valuation of the company.

Our main conclusion is that the current valuation is supported by a 35% YoY revenue growth between 2005 and 2010, flat profit margins and a terminal value equivalent of 8 times 2010 EBITDA[9].

[9] This multiple is considered reasonable as it keeps the terminal value less than 80% of the enterprise value.

Table 3.1

Discounted Cash Flow Analysis - EBay: Using EBITDA Multiples

($ in millions, except per share data)

Calculation of Unlevered Free Cash Flows		Projected FYE December 31,						35%
		2005E	2006E	2007E	2008E	2009E	2010E	
Total Revenue		4.55	$6.14	$8.29	$11.19	$15.11	$20.40	
EBIT		1.55	2.10	2.83	3.82	5.16	6.96	
Taxes on EBIT	30.0%	0.47	0.63	0.85	1.15	1.55	2.09	
NOPLAT (Net Operating Profit (Loss) After Tax)		1.09	1.47	1.98	2.67	3.61	4.87	
Plus or Minus: Depreciation and Amortization		0.41	0.55	0.75	1.01	1.36	1.83	
Plus or Minus: Increase in Deferred Taxes		0	0.00	0.00	0.00	0.00	0.00	
Plus or Minus: Capital Expenditures		0.34	0.46	0.62	0.83	1.12	1.52	
Plus or Minus: Increase in Working Capital		0.14	0.19	0.26	0.35	0.47	0.64	
Unlevered Free Cash Flows		**$1.30**	**$1.75**	**$2.37**	**$3.20**	**$4.32**	**$5.83**	
Free Cash Flow Growth Rate			*N/A*	35.0%	35.0%	35.0%	35.0%	
EBITDA		**$1.96**	**$2.65**	**$3.58**	**$4.83**	**$6.52**	**$8.80**	

	PV of Discounted Cash Flows	+	PV of Terminal Value as a Multiple of EBITDA				=	Enterprise Value			
Discount Rate	**(2006-2010)**		**5.0x**	**6.0x**	**7.0x**	**8.0x**		**5.0x**	**6.0x**	**7.0x**	**8.0x**
11.00%	$11.32		$26.10	$31.32	$36.54	$41.76		$37.42	$42.64	$47.86	$53.08
12.00%	$10.99		$24.96	$29.95	$34.94	$39.93		$35.95	$40.94	$45.93	$50.92
13.00%	$10.68		$23.87	$28.65	$33.42	$38.20		$34.55	$39.33	$44.10	$48.87
14.00%	$10.38		$22.84	$27.41	$31.98	$36.55		$33.22	$37.79	$42.36	$46.93
15.00%	$10.09		$21.87	$26.24	$30.62	$34.99		$31.96	$36.33	$40.70	$45.08

	Enterprise Value				-	Net Debt	=	Total Equity Value			
Discount Rate	**5.0x**	**6.0x**	**7.0x**	**8.0x**				**5.0x**	**6.0x**	**7.0x**	**8.0x**
11.00%	$37.42	$42.64	$47.86	$53.08				$37.42	$42.64	$47.86	$53.08
12.00%	$35.95	$40.94	$45.93	$50.92				$35.95	$40.94	$45.93	$50.92
13.00%	$34.55	$39.33	$44.10	$48.87				$34.55	$39.33	$44.10	$48.87
14.00%	$33.22	$37.79	$42.36	$46.93				$33.22	$37.79	$42.36	$46.93
15.00%	$31.96	$36.33	$40.70	$45.08				$31.96	$36.33	$40.70	$45.08

	Equity Value per Share (5.0M Shares Outstanding)				Terminal Value as a % of Enterprise Value			
Discount Rate	**5.0x**	**6.0x**	**7.0x**	**8.0x**	**5.0x**	**6.0x**	**7.0x**	**8.0x**
11.00%	$26.73	$30.46	$34.19	$37.92	69.8%	73.5%	76.4%	78.7%
12.00%	$25.68	$29.24	$32.81	$36.37	69.4%	73.2%	76.1%	78.4%
13.00%	$24.68	$28.09	$31.50	$34.91	69.1%	72.8%	75.8%	78.2%
14.00%	$23.73	$26.99	$30.26	$33.52	68.8%	72.5%	75.5%	77.9%
15.00%	$22.83	$25.95	$29.07	32.199013	68.4%	72.2%	75.2%	77.6%

Source: team analysis

eBay Financial Analysis – Revenue Estimates by Products

We then further analyzed the underlying growth and profit assumptions that may support EBay's current valuation. More specifically, we retrieved the profits margins per product that could possibly support such a valuation. Several product mixes were assessed with the most realistic scenario presented in Table 3.2.

Table 3.2

Revenue

	2002A	2003A	2004A	2005A	2006E	2007E	2008E	2009E	2010E
U.S. Marketplace	718	1,024	1,338	1,737	2,317	2,727	3,272	3,927	4,712
International Marketplace	297	654	1,157	1,690	2,117	2,548	3,185	3,981	4,977
Total Marketplace Revenues	1,015	1,678	2,495	3,427	4,434	5,275	6,457	7,908	9,689
Payments Revenue	93	432	680	1,002	1,384	1,677	2,180	2,834	3,684
Skype				24	176	280	392	549	768
Total Transaction 1									
End-to-End Services	22	5							
3rd Party Advertising & Other	83	52	94	123	283	651	1,497	3,442	7,917
Total Sales	1,213	2,167	3,269	4,576	6,277	7,883	10,526	14,733	22,058
					1.3717	1.2558	1.3353	1.3997	1.4972

% Ebit

	2003	2004	2005	2006	2007	2008	2009	2010
U.S. Marketplace			25%	35%	35%	35%	35%	35%
International Marketplace			25%	35%	35%	35%	35%	35%
Total Marketplace Revenues								
Payments Revenue			15%	15%	15%	15%	15%	15%
Skype			10%	30%	30%	30%	30%	30%
Total Transaction 1								
End-to-End Services								
3rd Party Advertising & Other			25%	35%	35%	35%	35%	35%
Total Sales				30%	31%	31%	31%	31%

$ Ebit

	2003	2004	2005	2006	2007	2008	2009	2010
U.S. Marketplace			434	811	954	1,145	1,374	1,649
International Marketplace			423	741	892	1,115	1,393	1,742
Total Marketplace Revenues			1,175	1,552	1,846	2,260	2,768	3,391
Payments Revenue			150	208	252	327	425	553
Skype			2	53	84	118	165	230
Total Transaction 1			0	0	0	0	0	0
End-to-End Services			0	0	0	0	0	0
3rd Party Advertising & Other			31	99	228	524	1,205	2,771
Total Sales			1,359	1,911	2,410	3,228	4,562	6,945

Source: Piper Jaffray, team analysis

Since our valuation is highly dependant on profit margins, we ran a sensitivity analysis, assuming some potential profit margins erosion. We foresee many potential reasons for eBay's margins to erode. Changes in product mix could induce lower profit margins percentage (payment has a 15% profit margin vs. 25% in the marketplace

business). Increased competition could also drive profit margins down, namely in the communication segment.

Table 3.3

Margins erosion	1%	3%	5%	10%
revenue growth	35%	37%	40%	45%

Source: team analysis

Table 3.3 describes the revenue growth needed to justify the current valuation, depending on the level of margin erosion eBay may experience in the future. Beyond the 5% erosion point, the revenue growth would need to be beyond 40% YoY between 2005 and 2010.

eBay Financial Analysis – Revenue Growth

Figure 3.1: Historical Revenue Growth

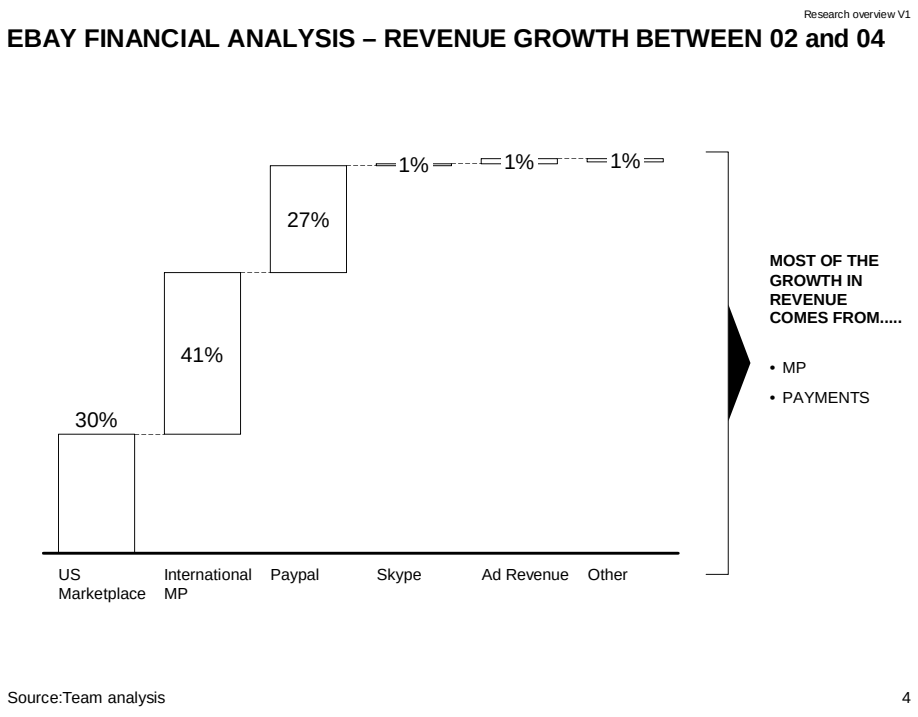
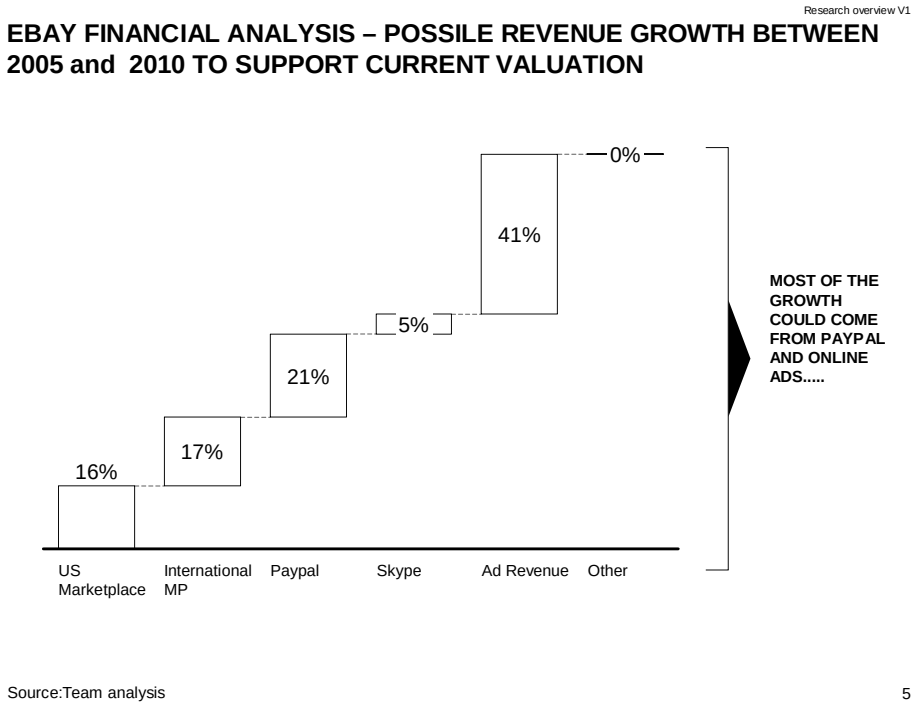


Figure 3.2: Potential Future Growth to Support Current Valuation



Main takeaway from our analysis: assuming the profit margins from their current businesses remain similar to their current level, or worse, if they face increased margin pressure, it is pretty likely that eBay will consider seriously entering the online advertising market at this point. Some recent signals lead us to think that this is under serious consideration within eBay senior management. We will discuss further about the best tactics for eBay to do so, but should eBay stay away from this market opportunity, we feel that their growth targets could be hard to reach.

Google Financial Analysis – Revenue

Our approach: We reviewed Google's current valuation using a traditional Discounted Cash Flow valuation method. We did not use methods based on multiple in order to focus on the core financial projections built into the current valuation of the company.

Our main conclusion is that the current valuation is supported by a 65% YoY revenue growth between 2005 and 2010, flat profit margins and a terminal value equivalent of 8 times 2010 EBITDA.

Table 3.4

Discounted Cash Flow Analysis - Google: Using EBITDA Multiples

($ in millions, except per share data)

Calculation of Unlevered Free Cash Flows		Projected FYE December 31,						65%
		2005E	2006E	2007E	2008E	2009E	2010E	
Total Revenue		6.138	$10.13	$16.71	$27.57	$45.49	$75.07	
EBIT		2.02	3.33	5.49	9.06	14.95	24.67	
Taxes on EBIT	30.0%	0.61	1.00	1.65	2.72	4.49	7.40	
NOPLAT (Net Operating Profit (Loss) After Tax)		1.41	2.33	3.84	6.34	10.47	17.27	
Plus or Minus: Depreciation and Amortization		0.29	0.73	1.20	1.97	3.26	5.38	
Plus or Minus: Increase in Deferred Taxes		0	0.00	0.00	0.00	0.00	0.00	
Plus or Minus: Capital Expenditures		0.85	2.11	3.48	5.75	9.48	15.65	
Plus or Minus: Increase in Working Capital		0.04	0.07	0.12	0.19	0.32	0.53	
Unlevered Free Cash Flows		**$0.89**	**$1.01**	**$1.67**	**$2.76**	**$4.56**	**$7.52**	
Free Cash Flow Growth Rate			*N/A*	65.0%	65.0%	65.0%	65.0%	
EBITDA		**$2.31**	**$4.05**	**$6.69**	**$11.03**	**$18.21**	**$30.04**	

Discount Rate	PV of Discounted Cash Flows (2006-2010)	+ PV of Terminal Value as a Multiple of EBITDA 5.0x	6.0x	7.0x	8.0x	= Enterprise Value 5.0x	6.0x	7.0x	8.0x
11.00%	$10.87	$89.14	$106.97	$124.80	$142.63	$100.02	$117.84	$135.67	$153.50
12.00%	$10.52	$85.23	$102.28	$119.33	$136.38	$95.76	$112.81	$129.85	$146.90
13.00%	$10.19	$81.53	$97.84	$114.14	$130.45	$91.72	$108.03	$124.33	$140.64
14.00%	$9.87	$78.02	$93.62	$109.22	$124.83	$87.89	$103.49	$119.10	$134.70
15.00%	$9.57	$74.68	$89.62	$104.56	$119.49	$84.25	$99.19	$114.12	$129.06

Discount Rate	Enterprise Value 5.0x	6.0x	7.0x	8.0x	- Net Debt	= Total Equity Value 5.0x	6.0x	7.0x	8.0x
11.00%	$100.02	$117.84	$135.67	$153.50		$100.02	$117.84	$135.67	$153.50
12.00%	$95.76	$112.81	$129.85	$146.90		$95.76	$112.81	$129.85	$146.90
13.00%	$91.72	$108.03	$124.33	$140.64		$91.72	$108.03	$124.33	$140.64
14.00%	$87.89	$103.49	$119.10	$134.70		$87.89	$103.49	$119.10	$134.70
15.00%	$84.25	$99.19	$114.12	$129.06		$84.25	$99.19	$114.12	$129.06

Discount Rate	Equity Value per Share (5.0M Shares Outstanding) 5.0x	6.0x	7.0x	8.0x	Terminal Value as a % of Enterprise Value 5.0x	6.0x	7.0x	8.0x
11.00%	$337.89	$398.12	$458.36	$518.59	89.1%	90.8%	92.0%	92.9%
12.00%	$323.51	$381.10	$438.69	$496.28	89.0%	90.7%	91.9%	92.8%
13.00%	$309.87	$364.96	$420.04	$475.13	88.9%	90.6%	91.8%	92.8%
14.00%	$296.92	$349.64	$402.35	$455.06	88.8%	90.5%	91.7%	92.7%
15.00%	$284.63	$335.10	$385.56	$436.02	88.6%	90.4%	91.6%	92.6%

Source: team analysis

Google Financial Analysis – Revenue Growth

"Schmidt underscored his optimism at one point by saying Google someday might generate $100 billion in annual revenue as it expands into a variety of new advertising channels, including television, radio and

publishing. The 7-year-old company's revenue totaled $6.1 billion last year."

Source: "Google execs paint bright picture," Michael Liedtke, Associated Press

Our approach: based on our NPV analysis, we then focus on the underlying assumptions supporting the revenue and profit projections built into the valuation. How realistic is it to assume Google could become a $75 billion company? More specifically, which moves does this imply for Google in the future?

We looked at the high level revenue target of $75 billion, which we believe is built into the current valuation, and consistent with the goal set by Eric Schmidt this year. Then we assess how reasonable these projections could be. More specifically, we worked on assessing whether Google could reach such levels of revenue solely through advertising. We first assessed the ad inventory Google would have on hand by 2010.

Table 3.5

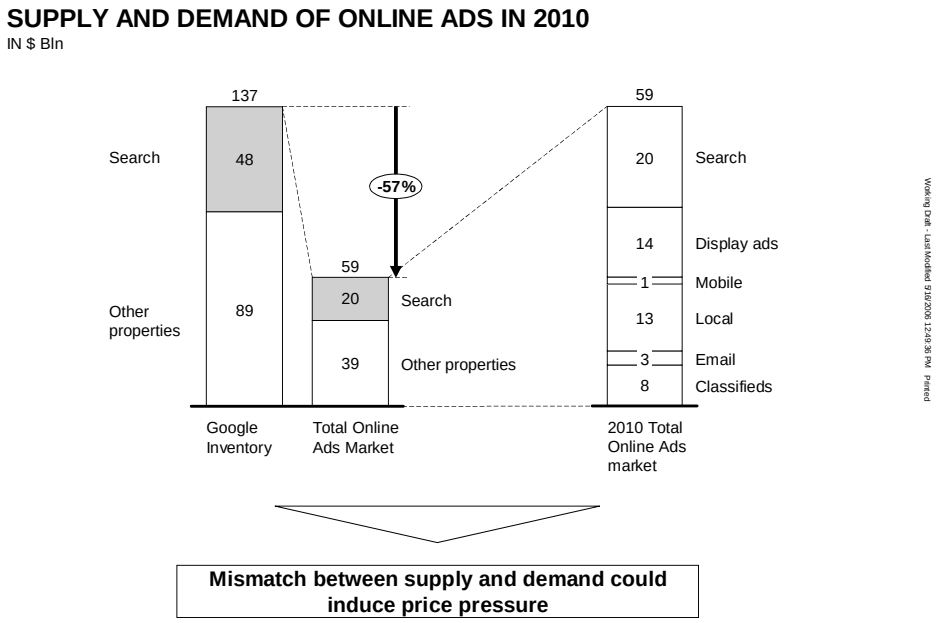
2010 Google potential Ads Inventory

		Source / Explanation
Ads Inventory estimates outside of search		
approach 1. Users / pages views		
internet users	1,781,000,000	http://www.etforecasts.com/products/ES_intusersv2.htm
Google penetration	60%	current market share on search ~ 40 % (source : comScore) + extra penetration from other properties
Google users	1,068,600,000	calculation
Average number of connections per month	10	yahoo ~ 480 page views per month
Average page views per connection	25	
total yearly page views	3,205,800,000,000	currently 240 billion, (source : Alexa)
Average numbers of ads per page	5	Estimate
click through	1.00%	1.3 for the US and .20 for ROW (consistent with GDP per capita)
$ per click	$0.561	
Ad revenue	**$89,922,690,000**	
Search Ads Inventory by 2010		
Approach 2. Revenue per query		
Google revenue model		
Users	1,068,600,000	
queries per user	300	http://blogs.zdnet.com/ITFacts/?p=10022&part=rss&tag=feed&subj=zdblog
ads per query	10	
click per ad	1.50%	
Revenue per click	$1	
Revenue	**$48,087,000,000**	

Source: team analysis

As a second step, we crossed checked these estimates with projections for online advertising markets by 2010 as shown in Figure 3.3. The projected $59 million market for online advertising is based on research analyst reports, which take into account both supply and demand. However, we feel the market will be constrained by demand and not supply, so this number sufficiently reflects the demand for online advertising in dollars in 2010.

Figure 3.3



Source: Google Inventory (Team analysis) Online Markets (forrester) 1

Main takeaway of this high level analysis: Based on our high level projections, we can foresee a mismatch between demand and supply that could possibly induce some price pressure on Google's core ad market. Moreover, in order to reach revenue levels built into Google's valuation, Google will have to enter markets outside of online ads. The following section will discuss further which ones are the most attractive for Google.

4. Possible Next Moves

eBay and Google's current stock market valuations dictate that both companies grow revenues at extraordinary rates while maintaining very impressive margins through 2010. Each company must identify new markets to enter in order to meet these growth goals. Table 4.1 provides shows the attractiveness of various markets to each company. Attractiveness is based upon the projected size of the market in 2010, the realistic

attainable market share by a single firm, the expected margins in the market, and the required investment by eBay and Google.

The attainable market share for each market is defined as high, medium, or low. A ranking of "High" indicates an expectation that the category leader will have a market share in excess of 60%. Examples would be Microsoft in desktop operating systems and enterprise productivity tools and eBay in (US-based) B2C auctions. In general, a market needs to inherently have network effects in order for one firm to dominate it.

"Medium" indicates a firm could attain more than 15% share but no more than 60% share. Online advertising is a good example. While there are significant barriers to entry, there are no inherent network effects. As a result, while Google is dominant in online advertising, there is strong competition in the form of Yahoo, Microsoft, and to a lesser extent AOL, Interactive/Ask, and News Corp/MySpace.

"Low" is less than 15% share in cases where markets are expected to be highly fragmented or significant penetration by eBay or Google is unlikely. The enterprise CRM market is an example where, for example, Google may be able to make inroads with hosted CRM solutions (competing directly with salesforce.com) but it is unlikely they'll capture more than 15% of the overall CRM market in the next 5 years (competing against Oracle, Siebel, SAP, etc.).

The expected profit margin for each market is extremely important because eBay and Google enjoy some of the most attractive margins in business with both companies around 24% profit margin. In order for both firms to justify their valuation, their revenue growth must not come at the expense of these stellar margins. Therefore, only markets in which firms can expect profit margins of greater than 20% are ranked as "High." A

“Medium” rating is afforded markets with expected profit margins between 8% and 20% and a “Low” rating for markets with less than 8% profit margins. Online/digital advertising and e-commerce marketplaces generally represent high margin businesses due to a combination of inherent efficiencies and large barriers to entry. However, an example of markets where medium profit margins are expected is the traditional advertising markets such as TV. There is more human interaction required in the creation of the advertising media resulting in higher cost of revenues.

The investment required takes into account market factors and factors specific to each firm. The market factors include the competitiveness of the market, the maturity and stability of the market, and the barriers for a new entrant to the market. Factors specific to the firm include its current position relative to the market, how well it can leverage its core competencies in the market, and any assets it owns that would be valuable in the market. As with previous market attractiveness criteria, the investment required is ranked as “High,” “Medium,” or “Low.” Unlike previous criteria, it is more subjective based on an assessment of the above issues.

Each market is given an attractiveness ranking based on the following formula: 2010 Market size (in billions) X Attainable Market Share Rank X Profit Margins Rank X Investment Required Rank. See Table 4.2 for the weights. In general, the weights map to the financial impact of each attribute. For example, a $1 billion market in which a company has 90% market share and 30% profit margins is more attractive than a $10 billion market in which a company has 10% market share and 10% margins. This is because in the first scenario the company has profits of $1B X 90% X 30% = $270M

whereas in the second scenario, despite being a 10x larger market, the company only has $10B X 10% X 10% = $100M profits.

As can be seen from table 4.1, eBay's most attractive opportunities are in its traditional e-commerce businesses (auctions, fixed price, classifieds, and payments) and emerging markets VOIP, TV and print advertising auctions. Google's most attractive opportunities are in its core businesses (search advertising) and emerging opportunities enterprise office productivity tools, local advertising, and classifieds. The company has made moves suggesting an assault on Microsoft Office, such as the recent acquisition of the hosted word processor writely.com.

Table 4.1: Business Opportunity Assessment Matrix

Business Opportunity	2010 Global Market Size ($B)	Attainable Share	Margins	Investment Required - EBAY	Investment Required - GOOG	Market Entry Rank - EBAY	Market Entry Rank - GOOG
Advertising Markets							
Internet							
Search	19.8	Medium	High	High	Low	12	111
Display ads	13.8	Medium	High	High	Medium	9	26
Mobile	1.5	Medium	High	High	Low	1	8
Local	13.0	Medium	High	High	Low	8	73
Email	2.9	Medium	High	High	Low	2	16
Classifieds	8.0	High	High	High	Medium	14	42
Traditional							
Print	22.8	Medium	Medium	Medium	Medium	22	22
Radio	6.2	Medium	Medium	Medium	Low	6	18
TV	22.7	Medium	Medium	Medium	Medium	22	22
Enterprise Markets							
Collaboration	2.3	Medium	High	High	Medium	1	4
Office tools	16.1	Medium	High	High	Medium	10	30
Search	2.6	Medium	High	High	Medium	2	5
CRM	16.0	Low	Medium	Medium	Medium	6	6
VOIP	18.0	Medium	Medium	Low	High	53	6
E-Commerce Markets							
Auction	11.1	High	High	Low	High	174	19
Fixed price	38.6	Low	Medium	Low	Medium	45	15
Classifieds	6.3	High	High	Low	Medium	100	33
Payments	3.1	High	High	Low	Medium	48	16

Source: Forrester, RBC Capital, Kelsey Group, Radicati, ARM Research, Juniper, Jupiter, team analysis

Table 4.2: Ranking Weights

Attainable Share		
High	0.70	>60%
Medium	0.25	15-60%
Low	0.10	<15%
Margins		
High	0.25	>20% profit
Medium	0.13	8-20% profit
Low	0.06	<8% profit
Investment Required		
High	10.00	take into account:
Medium	30.00	firm: position, core competency, assets
Low	90.00	market: structure, competitiveness, barriers to entry

Source: team analysis

Possible Next Moves

With such high growth expectations and so many options, it is a very complex task to assess what each company should do next. A recent *Wall Street Journal* article[10] provided insights into eBay's process:

> "So dizzying is the array of potential options that eBay executives have drawn up a chart mapping its three main businesses -- an auction marketplace, the PayPal online-payment service and Skype, an Internet phone service -- along with potential partners for each. The decision eBay makes will go a long way toward determining what kinds of businesses it will be in. Executives from the companies involved think these talks could herald mergers or acquisitions that would reshape consumer commerce on the Web."

To make some sense of all the possibilities, the following sections will provide discussion in two areas: core businesses and emerging markets. The section on core businesses takes a look at eBay entering Google's core businesses and Google entering eBay's core businesses. The section on emerging markets covers four nascent, high growth markets both eBay and Google have their sights set on and intense competition is expected.

Core Businesses

Google Search and Advertising Network

[10] WSJ approximates eBay's online marketing spend at $400 million. "To Compete or Cooperate," by Mylene Mangalindan, May 1, 2006

As shown previously in the paper, search is growing at an astonishing rate as a means for buyers to connect to sellers. eBay's search strategy is critically important. From the *Wall Street Journal* article,

> "In addition to the talks with Yahoo and Microsoft, eBay considered buying or building its own search and ad technology. Some eBay executives advocated staying neutral, doing business with none or all three search companies equally."

In conjunction with the rising importance of search to e-commerce is the rising cost of doing business with search engine companies. Meg Whitman had this to say in 2005:

> "It's incumbent upon us...to figure out how to moderate these quite significant increases in media costs."

eBay's options are to continue relying on all search engines, to exclusively work with one search engine, or to build their own search engine.

Google is so dominant among the search engines it is inconceivable that eBay would discontinue using Google. Out of the 18.3% of e-commerce traffic that search engines drove in total, Google represented 11.1%. Compare this to Yahoo at 4.05% and Microsoft at a paltry 0.79%[11]. If eBay were to exclusively work with a single search engine vendor (assuming they gain some benefit by doing so), Google is the only practical choice.

Alternatively, eBay could build their own search engine. They have already done this once, developing Voyager in 2001, the engine used to power search on the eBay site.

[11] Hitwise. http://www.findarticles.com/p/articles/mi_m0BNG/is_2006_Jan_12/ai_n16000713

However, the investment required to develop, maintain, and innovate an internal site search engine is orders of magnitude less than full-blown search that Google and Yahoo have (including the dozens of vertical searches such as images, videos, news, blogs, etc.). Additionally, given the fact Yahoo and Microsoft have been losing market share in search every quarter since the companies decided to use their own search technology, it begs the question what chance eBay has to build significant market share in search.

Closely related to search is a search advertising network. Google has the strongest search advertising network in the industry in terms of number of advertisers and sales. The three search engines with the largest market share, Google, Yahoo, and Microsoft, all have their own search advertising network. The fourth and fifth largest search engines, AOL and Ask, currently rely on Google's network. As these two companies represent less than 15% of the search market, there really isn't a market for a private label search advertising network.

In summary, eBay is not in a strong position to enter the search engine or search advertising network.

eBay Auctions and Payments

eBay's core businesses of auctions and payments have the inherent advantage of strong network effects. In addition to this barrier to entry, other barriers include a large database of credit card information and network of participating payment web sites. This makes it difficult for Google to enter either of these markets.

However, Google is well positioned to outflank eBay. One of Google's key assets, the search result page, is a natural place for users to discover products and services to purchase. Google could initially enter underserved e-commerce market segments such

as classifieds in order to develop a base of individual sellers. Subsequently, they could offer this base of sellers auctions as a way to sell their items. For payments, Google could again enter an underserved market segment such as content micropayments. Once successful, they could move into e-commerce on their own network and eventually off-network (other web sites) e-commerce.

eBay's core businesses have high barriers to entry, but there is a clear, legitimate path Google can take over the next 3 to 5 years in order to attack these businesses. The same cannot be said about eBay attacking Google's core businesses.

Emerging Markets

Classifieds

Craigslist has proven the Internet is an excellent medium for classified advertising and it is projected to be a very large market. eBay and Google are both investing in this market but eBay clearly has the advantage at this point. eBay owns a 25% stake in Craigslist and has developed Kijiji as a global brand. Kijiji's growth has been organic in some countries and through acquisition in others.

Google has launched Google Base as a means of sellers to upload and post listings. However, Google Base is not yet focused as a classifieds listings business. For example, there is not a destination site for, say, Beijing listings. More importantly, Google has not yet amassed a large base of individual sellers. The majority of the millions of listings on Google Base are from a relatively few providers.

China

China is an enormous opportunity. Both companies are investing heavily in China. eBay acquired EachNet and invests $100M annually in China. Google recently

launched google.cn, a locally hosted version of Google search that complies with Chinese regulations. Google has also opened an office in Beijing led by Kai Fu Lee and is aggressively hiring in China.

eBay and Google are primarily focused on developing their core businesses in China at this point. Neither company has yet to establish a leadership position let alone market dominance due to stiff local competition from Alibaba and Baidu.

One aspect that stands out in China is the ratio of mobile users to Internet users. There are four mobile users to every one Internet user in China. While eBay and Google focus on their core businesses, they need to consider their mobile strategy more so in China than elsewhere.

Mobile

The mobile Internet is a potential game changer. It will likely redefine when and how people conduct search and transact e-commerce. Google has the clear lead at this point having launched numerous mobile applications and secured distribution partnerships with handset manufacturers such as Nokia and Motorola. eBay has launched a mobile version of PayPal and supports a mobile version of eBay in the UK. However, the company does not have any distribution agreements with mobile operators or handset manufacturers.

Advertising

As the financial and market analysis indicates, Google needs to continue developing its advertising business by expanding into new market segments and eBay will likely need to enter new advertising segments.

Traditional media advertising is ripe for innovation, such as an auction-based open marketplace. eBay is relatively well positioned for this market since they are leaders in auctions and no company has yet seized this opportunity. In fact, eBay recently won a $50 million bid for a TV ad auction platform sponsored by major advertisers[12]. Google has entered the market for radio advertising through its acquisition of dMarc and has also launched a newspaper advertising business.

Another advertising market that is nascent yet has high growth potential is pay-per-lead advertising, where pay-per-call is one example. eBay's expertise in e-commerce and closing transactions as well as its Skype VOIP asset positions the company well for a pay-per-lead/call model. Google has been testing pay-per-call in both AdWords and its local application on mobile phones.

There are several untapped market segments in advertising that both Google and eBay are well positioned to be market leaders.

Growth Strategy

Each company must assess a buy, build, or partner strategy in each of the entry markets. In general, Google prefers to build but they have shown the capacity to buy (dMarc is a good example). eBay has acquired two of their largest growth businesses (PayPal and Skype) but can build as well (eBay Express).

Given Google's relatively stronger overall strategic and cash position, eBay would be well served by forming a deep partnership with Yahoo or Microsoft to restore the balance of power. One example of partnership would be for eBay to strengthen Yahoo or Microsoft search offerings in order to help them increase their search market

[12] http://publications.mediapost.com/index.cfm?fuseaction=Articles.san&s=43297&Nid=20304&p=363758

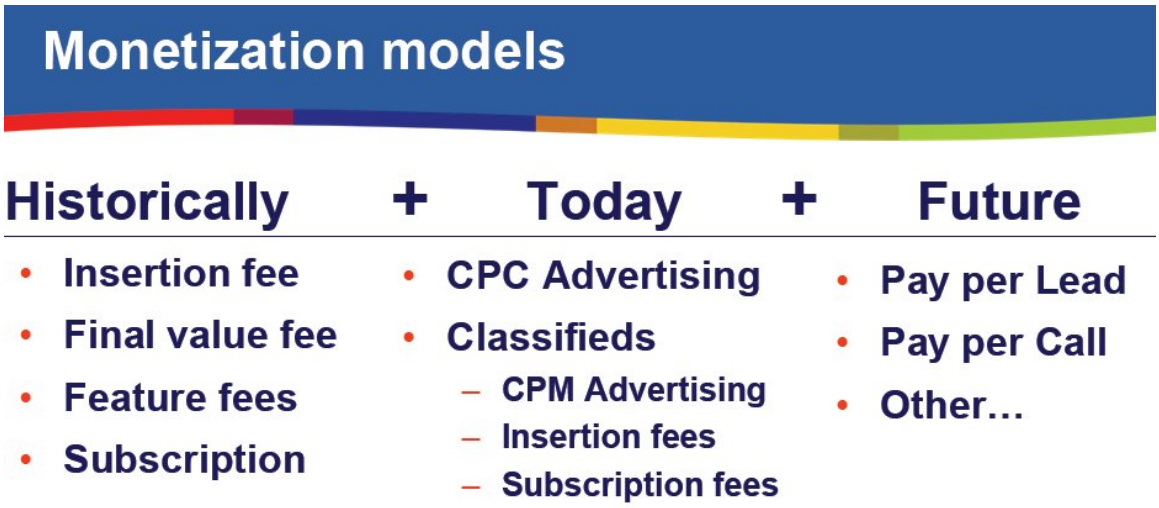
share. eBay could do this by exclusively providing real-time information on auction listings that could be displayed in Yahoo or Microsoft search page results.

5. Future Relationship

Entering each other's playground

Based on our previous analysis, it is likely that both companies will enter the other one's playground in the future. As shown in our analysis, eBay cannot afford not to invest heavily the online advertising market. On numerous occasions, eBay hinted that it is considering new monetization avenues, most of them being ad-based.

Figure 5.1



Source: eBay analyst presentation, May 2, 2006

On Google's side, it is also likely that Google will slowly but surely enter eBay's territory in the near future. As part of Google's philosophy discussed earlier, they have launched several products (small bets) in areas surrounding e-commerce. This has

already started happening, with Google launching Google Base in 2005, which allows anyone to post content on Google. Shortly after, rumors emerged about a Google effort to launch a payment system, under different possible forms.

Here are Meg Whitman's comments on Google competing with PayPal:

"We do a lot of business with Google and we typically don't comment on rumors. What I can tell you is that PayPal has been around since 1999. We've got 70 million accounts. Talk about the ability to manage a new payment service. Think about the infrastructure that we've built up over those six years in terms of customer support, fraud mitigation, the ability to really understand and comply with all the laws that have gone into place since 9/11. This is a highly regulated space now, and something we've developed a real expertise in. So we feel pretty good about our competitive position and the fact that we have critical mass here. But we actually don't mind competition; it makes us better."

Why they are not likely to compete head to head in their core markets.

As described in part 4, it is going to be very difficult for eBay to attack Google at the heart of Google's power: search. Likewise, it would not necessarily make much sense for Google to compete face to face with eBay's bread and butter marketplace business. Google would face significant barriers to entry: strong network effects and ability to deal with fraud. Plus, in the short term, Google could damage its relationship with one of its top customers (see part 1).

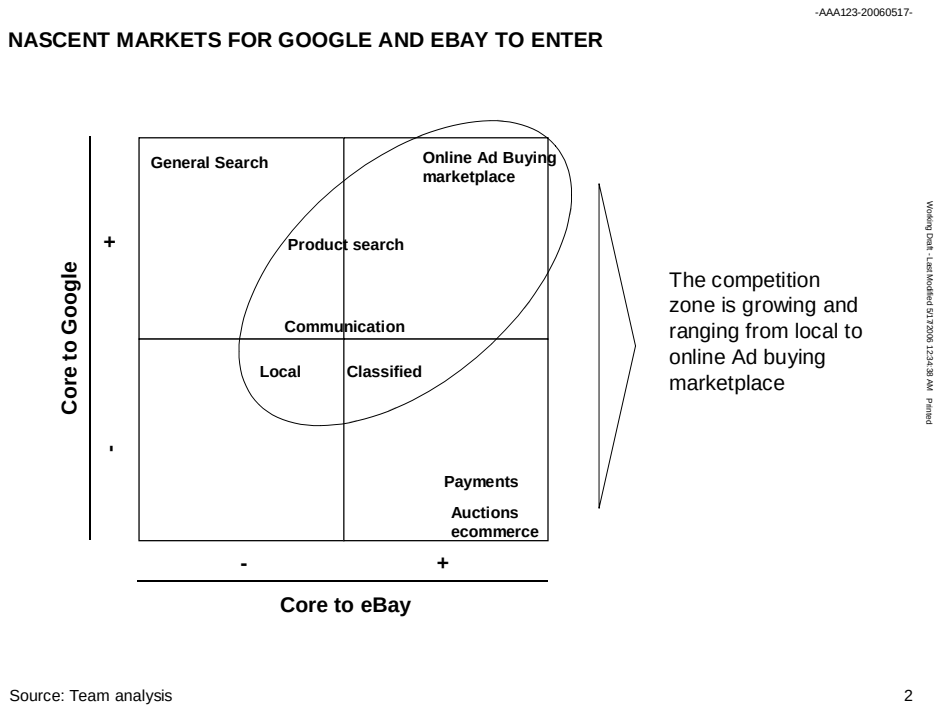
But more and more competition is to be expected on the edges…

However, many reasons lead us to believe that competition between the two companies will intensify in nascent markets, such as classifieds (and local in general), product search, and communication. In those markets, which are attractive to both companies for different reasons, sustainable leadership remains to be achieved.

Defining the battle field…

Figure 5.2 summarizes the main nascent markets by product types (as opposed to geographies).

Figure 5.2: Competitive Zone



Based on our understanding of each company's interests and strategy, we expect most of the competition to occur in markets that are still uncapped. In terms of products offering these markets are already experiencing great overlap between eBay and Google. The main examples are the following:

- Skype and Google Talk offer IM and VOIP services for free from computer to computer
- Shopping.com and Froogle share many similar features and compete directly in the field of product search
- Google Base and Craigslist both allow people to post content, product and service for free.

However, in these markets, it remains unclear who the winner will be down the road. For example, in classifieds, eBay seems to be ahead of Google at this point. eBay has established a strong global presence in most main local markets in North America.

However, Google will likely respond to this threat, since classifieds can potentially enrich the Google value proposition to local advertisers and create an attractive growth opportunity for Google.

6. Conclusion

Based on this situation, what should both companies do at this point to optimize their chances in this game?

eBay

Despite the market's current perception, we do not believe eBay is in a position to be attacked at its core by Google. In many ways, eBay has built over time some key strengths that will be difficult for Google to challenge (mostly the ability to deal with fraud and a large scale secure payment system). However the current level of dependency experienced by eBay with Google has reached a level where eBay has to react. The extension of the current status would most likely benefit Google. Even if we don't believe eBay could end its marketing on Google for lack of an alternative, eBay can surely

leverage its dominant position on ecommerce to help create sustainable alternative to Google online advertising. Recent articles reported talks between eBay and Microsoft or eBay and Yahoo over a potential long term partnership where either MSN or Yahoo could power ads on eBay, or potentially create a program comparable to AdSense for eBay affiliates. Rumors of potential merger discussion between eBay and Yahoo emerged recently, without being denied by either company. In any case, eBay has the leverage to help both MSN and Yahoo regain market share over Google and potentially work at reducing its dependency on Google.

Google

At this point, we believe Google should do its best to maintain its current relationship with eBay. In some way, Google benefits from the current status quo. eBay is still a very valuable customer that is still focused on something Google does try to address. However, should the competition intensify, it is difficult to see whether Google will be in a position to maintain a cease fire with eBay. For example, if the experience about the TV ads buying system was to gain traction and be joined with many large advertisers, the two companies could end up competing head to head on a market that is equally key to each of them, where only one company can win. All the conditions would then be met for stiffer competition.

Appendix

Exhibit A

Source: eBay presentation (London analyst meeting Feb ’06)

Exhibit B

1. Motors	$13.6 B
2. Consumer Electronics	$3.5 B
3. Clothing & Accessories	$3.4 B
4. Computers	$3.1 B
5. Books / Music / Movies	$2.6 B
6. Home & Garden	$2.5 B
7. Collectibles	$2.2 B
8. Sports	$2.1 B

Source: eBay presentation (London analyst meeting Feb ’06)

Exhibit C

Category	**Query**
Consumer Electronics	digital camera
Motors	bmw
Clothing & Accessories	pearl izumi
Computers	imac
Books / Music / Movies	into thin air
Home & Garden	shovel
Collectibles	pez dispenser
Sports	michael vick jersey
Services	real estate attorney

Source: eBay presentation (London analyst meeting Feb ’06), team analysis

The methodology used to determine the mix of customers for eBay and Google is based on sample queries. Example queries were selected for eBay’s top 8 product categories. Some queries were generic (“digital camera” and “shovel”) while some were specific products (“imac” and “into thin air”). An additional query for services was tested to understand the mix of customers on Google and to confirm eBay does not support this type of query.

Each query was run on Google.com and eBay.com. For each query on Google, the top 10 advertisers (if there were that many) were classified by business type. The top 10 advertisers are selected first from the “north” ads on the page and then starting at the top and running down the “east” ads. For each query on eBay, the top 10 listings shown for the query were classified by business type (by default the sort order is by time remaining in auction, although it was verified that “Buy it now” listings were sometimes in the top 10).

The pie charts in Figures 2.2 and 2.3 are the aggregate classification across all of these queries.