

*Customer Value, Inc.*  
Developing Successful Product Strategies

**The Launch of Apple's iPad Mini – a Customer Value Perspective**

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In late 2012, Apple launched the first major extension of its iPad line, the iPad Mini. In doing so, it entered a mushrooming and crowded market. The Mini, a smaller version of Apple's full sized iPad, offered an exceptional array of features as well as Apple's vaunted design elements. However, its price, with the base model selling for \$329, was more than 50% higher than some of its mini-tablet competitors, and prices at the upper end of the Mini line were off the charts.

It costs a great deal to bring a new product to market, but it costs almost nothing for pundits to second-guess the maker's strategy. As the world's most valuable company at the time, any move Apple made drew security-analyst scrutiny. In the case of the iPad Mini, its pricing strategy drew both scorn and praise. Some analysts felt it was overpriced. However, little of the commentary was backed by rigorous analysis.

This paper revisits the iPad Mini launch using the tools of Customer Value Analysis (CVA) to offer a rigorous and objective perspective on the Apple entry strategy. The CVA discipline starts with a profile of the market as it exists -- the models available, their comparative performance along a battery of criteria, and their prices. When applied to the analysis of a product-introduction strategy, the technique yields an estimate for a new product's value given its performance relative to the customers' other choices. Was the iPad Mini overpriced? Let's see.

*The iPad concept*

When Apple introduced the iPad in 2010, it created a new category of information device. The lightweight, wireless-connected, touchscreen-control capabilities defined a new way to harness the increasing power of electronics for consumers. The iPad was far from the first tablet computer. Others, such as Microsoft with its Tablet PC in 2004 as well as Apple itself with its 1987 Newton, had been trying for decades to find the right combination of user features and technical capabilities. The iPad, however, was the first to hit the magical consumer sweet spot, and Apple sold millions.

Success attracts imitators and it was inevitable that similar devices would start popping up in competition with the iPad. As the first mover, Apple had a huge head start with the 10" diagonal screen format. However, cell-phone manufacturers, particularly those using the Android operating system, had a significant technical infrastructure that they could use to produce their own touch screen devices. To differentiate themselves, competing companies introduced devices

that were smaller, lighter, and cheaper than the iPad. These devices gained traction as media-consumption products – well suited to reading books, viewing movies, and playing games.

In addition to phone makers, media sellers such as Amazon and Barnes & Noble knew that the consumption of books and movies was moving away from paper, DVD, and computer formats and onto tablets and smartphones. To capitalize on the growing market for “readers” and to stay viable in the media market, it was essential for them to have a presence in the electronic segment.

Apple was initially skeptical that the smaller form format was viable. A 2010 article on the website *Engadget* reported that Apple founder Steve Jobs ...

... pretty much outright killed any potential for 7-inch iPad rumors, saying that the software just isn't right for that size ("This size is useless unless you include sandpaper so users can sand their fingers down to a quarter of their size.") and that users have no need for a pocket sized tablet when they already have a smartphone. He called the iPad's upcoming competition in the space "DOA."

However, by 2012, Apple found itself as a spectator watching the small end of the tablet market explode. By allowing that market to flourish uncontested, Apple was enabling the emergence of a growing threat to the iPad franchise itself. So, in the fall of 2012, Apple introduced its own small tablet, the iPad Mini.

The Mini, with an 8” screen, was much smaller than the full sized iPad and much less expensive. But it was not as small as models offered by its competitors, and not nearly as inexpensive. The iPad Mini started at \$329, whereas competing products could be had for under \$200. And the high-end iPad Mini cost \$659, more than twice the price of the high-end models of major competitors. So the Apple introduction raised many questions about the Apple’s pricing and positioning strategy.

### *Consumer options in the tablet market*

To maximize their odds of success, companies planning to introduce a new product into an existing market need to understand the market as it is – from the customer perspective. So, our retrospective analysis of the iPad Mini introduction starts with an effort to understand the mini-tablet market, as it existed before the iPad Mini was introduced.

By the time of the iPad Mini introduction in 2012, Apple hardly had a monopoly on tablets. As a measure of how quickly technology companies can spin off variants of a good idea, Consumer Reports website in Mid-November, 2012 had reviews of 84 models of tablets, including six models from Apple. Consumer Reports’ analysts do an excellent job of evaluating competing models (taking an approach that is well worth emulating by anyone using customer value analysis). They start by assembling a database comparing the products on the market. Here we’ll use their published data, which include three categories of variables – specs and laboratory measurements, subjective ratings (circle scores), and features – to evaluate the tablets against which the iPad Mini was about to compete.

Product specs and measurements provide an objective perspective on certain aspects of the customer experience. In the tablet category, useful specs included *screen size* (diagonal, in inches), *storage* (GB), *battery life* (hours), and *weight* (pounds). These are important to customers because they are indicators of, respectively, the ability to see photos, movies, etc. at full size; the storage capacity for apps, photos, movies, etc.; the ability to get a full day's usage without recharging; and the ergonomic advantages of having a lightweight product.

Other aspects of the customer experience are best evaluated on a subjective basis. Consumer Reports analysts evaluate subjective attributes on a 5-point scale. Here, they evaluated *ease of use* based on a variety of usage scenarios, including reading books, playing games, etc. They evaluated the *display* based on subjective assessments of color, viewing angle, brightness, and glare. They evaluated *touch-screen responsiveness* by selecting and moving objects and typing.

The features they offer also differentiate products in the category. Among the features that may be important to tablet customers are cellular connectivity (allowing internet access from anywhere), memory-card reader (for rapidly uploading pictures from a camera), a front facing web camera (for web chats), a rear facing camera (for taking photographs or videos), and GPS (to support geo-location apps). A zero/one scale is typically used to record the presence or absence of a feature.

There are some key differences among the products that, although important to customers, are missing from this analysis. One is design. The aesthetics of hardware and software design are hard to measure scientifically. However, market researchers using focus groups or surveys are often able to quantify the comparative strengths and weaknesses of different models. Their measures could be added as an attribute to the analysis. Another missing dimension is brand. Brand image is often a cue to the customer as to the reliability and future viability of a product. Again, the attractiveness of a brand is something that can be measured by market researchers, and added to the analysis as an additional attribute. However, assigning relative importance weights to a brand name per se is tricky, as brand image is often closely correlated with measurable aspects of performance.

### *Offer Comparison Scorecard*

Let's look at 7"-8" tablets with Wi-Fi-only connectivity. There were 24 models. First we reviewed the impact of attribute performance scores and features on the going rates of small tablets. We selected a dozen key buying factors that seem to count the most when buyers choose among competing tablets. Next we identified the key producers and ten important tablet models that the iPad Mini product line would face at launch. Then we constructed a table comparing the performance and prices these models.

Exhibit 1: Product comparisons of selected pre-iPad-Mini models

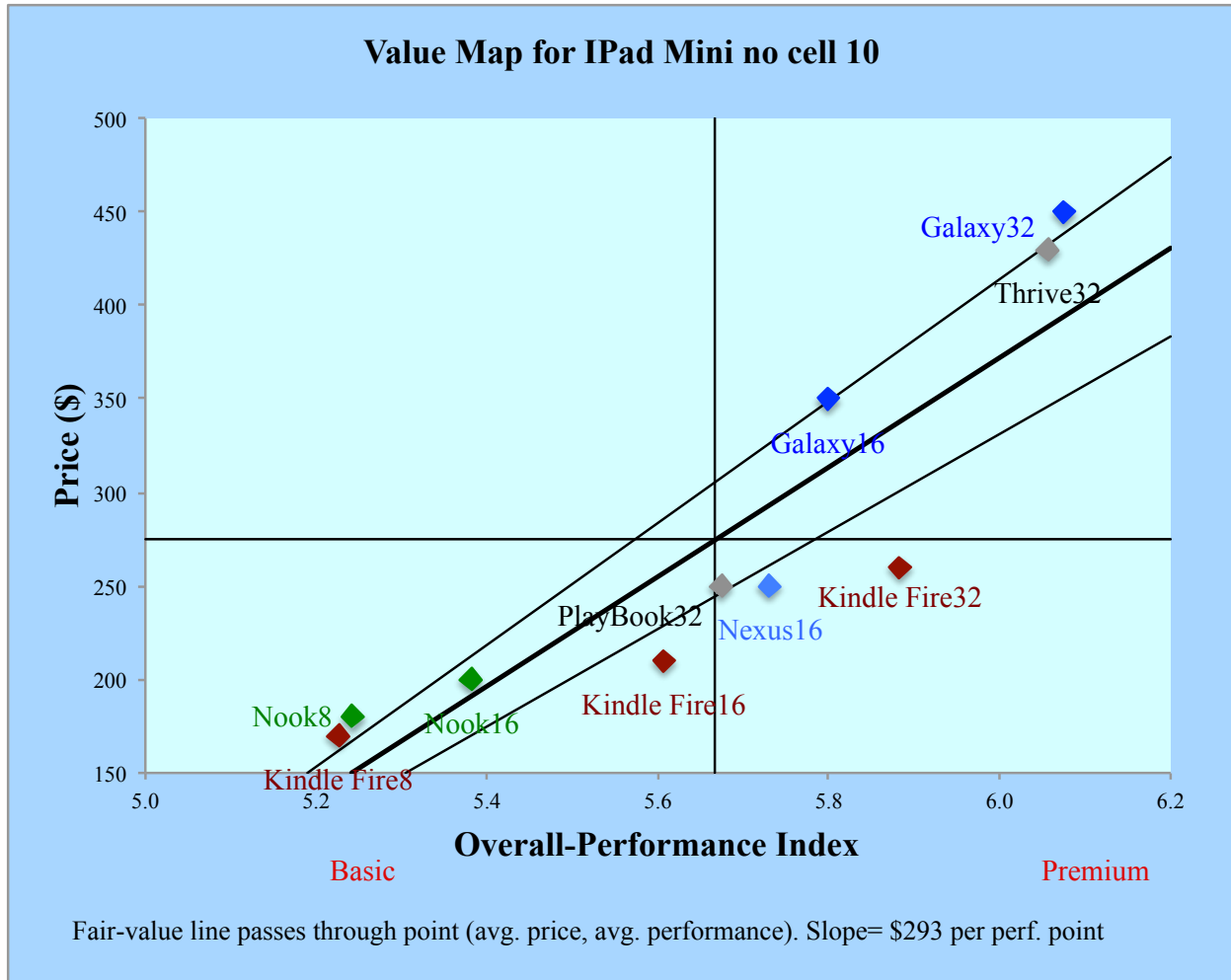
Attribute	Weights	Kindle Fire8	Kindle Fire16	Kindle Fire32	Nook8	Nook16	PlayBook32	Nexus16	Galaxy16	Galaxy32	Thrive32
Screen diag ( In)	14.1	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Storage(GB) ( GB)	24.2	8	16	32	8	16	32	16	16	32	32
Battery (Hrs) ( Hours)	1.6	7.6	10.7	10.7	6.2	6.2	7.6	9.5	6.5	6.5	5.0
Weight (lb) ( Lb)	7.4	0.90	0.90	0.90	0.90	0.90	1.00	0.70	0.80	0.80	0.80
Ease of use ( 1-to-5)	12.6	4.00	4.00	4.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00
Display ( 1-to-5)	10.5	4	4	4	4	4	4	4	4	4	4
Touch response ( 1-to-5)	12.8	4.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00
Cell ( 0 or 1)	10.4	0	0	0	0	0	0	0	0	0	0
MemCard ( 0 or 1)	0.8	0	0	0	1	1	0	0	1	1	1
Web Cam ( 0 or 1)	0.8	0	1	1	0	0	1	1	1	1	1
Camera ( 0 or 1)	2.4	0	0	0	0	0	1	0	1	1	1
GPS ( 0 or 1)	2.3	0	0	0	0	0	1	1	1	1	1
Overall Performance Score		5.23	5.61	5.88	5.24	5.38	5.67	5.73	5.80	6.08	6.06
Price		170	210	260	180	200	250	250	350	450	430

This table compares the prices and performance of ten key 7”-8” tablets already on the market at the time that Apple launched the iPad Mini. There are three Amazon Kindle tablets, two Barnes & Noble Nook models, one Blackberry Playbook, one Google Nexus model, two Samsung Galaxy models, and one Toshiba Thrive model. The *prices* of the models range from a little over \$150 to about \$450. Note that, in addition to individual metrics, we have constructed an overall performance score for each model. This score, based on a 1-to-10 scale, is constructed by weighting the individual metrics listed in the table. The *performance* differences of these selected models on a 1-10 scale range between 5.2 and 6.1. The relative weights of the component metrics (in normalized terms) are listed in the leftmost column of numbers<sup>1</sup>.

<sup>1</sup> The process of transforming the table of attribute-performance metrics into a single overall score has two steps. First, each of the metrics (e.g. the screen diagonal measurement in inches) is restated as a score on a 1-to-10 scale. Secondly, a set of weights (the “normalized” weights), summing to 100, is chosen to represent the relative importance of the attributes. The overall performance score is a weighted average of the component 1-to-10-basis attribute scores using these weights. Either of these steps could be executed on a purely subjective basis. However, we prefer to use a systematic repeatable logic for these steps to add rigor to these calculations. For details, see the paper *Implementing strategic B2B pricing: Constructing value benchmarks*, by Bradley T. Gale and Donald J. Swire, *Journal of Revenue and Pricing Management*, January 2012 (see the *Suggested Reading* page of the CVAL.COM website).

Because we have both prices and a measure of overall performance, we can construct a value map that shows how the models on the market present customers with a tradeoff between price and overall performance.

Exhibit 2: Value Map showing pre-iPad-Mini models available



The value map of the pre-iPad-Mini small-tablet market (selected models shown above) shows the expected pattern – higher performance models such as the 32 GB Galaxy sold for a premium price relative to basic models such as the Nook models and the 8 GB Kindle fire. Note that the 16 GB and 32 GB Kindle Fire models (in orange) enjoyed prominent positions in the “good deal” zone (below and to the right of the sloping fair-value line)

Was there room in this picture for a mini tablet from Apple? Perhaps there was, but only if the product is suitably differentiated from the competition and priced fairly for its performance. Let’s see what Apple actually brought to the table.

Exhibit 3: Value Map for the small tablet market after the iPad Mini launch

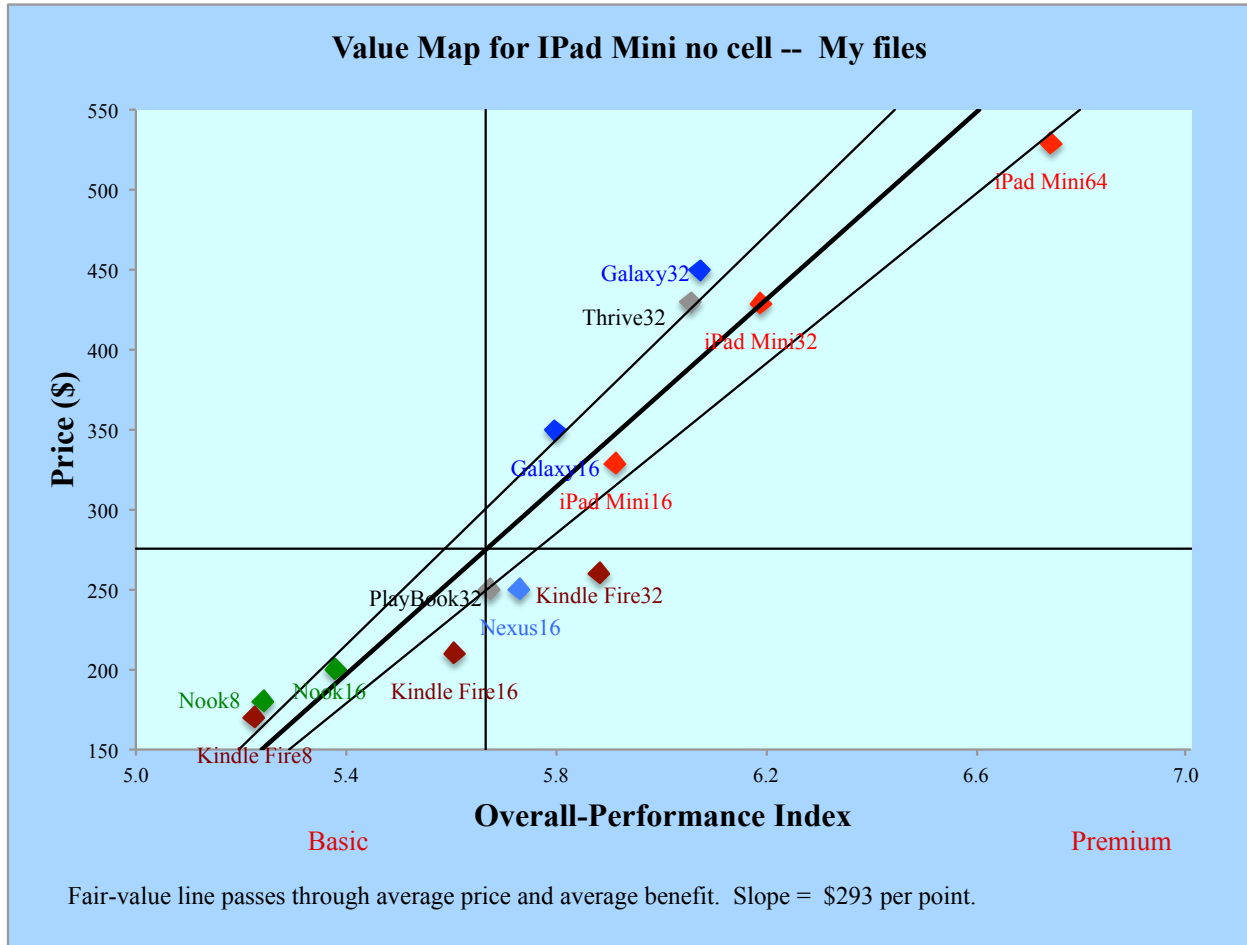


Exhibit 3 shows the mini-tablet market with the addition of the Apple Mini products. The value map shows that, at launch, the three iPad Mini models (colored red) – 16 GB, 32 GB, and 64 GB – all had above average performance (to the right of the vertical crosshair) and higher than average prices (above the horizontal cross hair). All three models are in the fair-value zone (the central diagonal area), fairly priced given their performance advantages. Note that the 16 GB model, however, is in a crowded segment and has serious competition in terms of price and performance.

The value map suggests that despite their high prices, the iPad Mini models do offer significant enough performance advantages to justify the price premium over the competition. The 64 GB model offers performance that is unmatched by any competitor, and seems like a reasonable choice for customers with very deep pockets. There is a lot more competition at the low end of Apple’s product line. Both Amazon’s Kindle Fire and Google’s Nexus offer slightly lower overall performance than the iPad Mini 16 GB model, but at significantly lower prices.

*Head-to-Head against the Kindle Fire*

Let's look at this lower-end competition from a customer perspective. Imagine a customer who was about to spend \$210 on a 16 GB Kindle Fire from Amazon, but held off because she had heard that Apple was expected to come out with a new product. Now that the iPad mini is out, she sees that it offers an attractive package of performance. But, how much more would she be willing to pay for the iPad Mini relative to the Kindle Fire?

Exhibit 4 shows an appraisal table for the iPad Mini. The table compares the iPad Mini against the Kindle Fire on an attribute-by-attribute basis and assesses the worth of any performance differences. These assessments are based on the fair-value line in the value map (showing the market worth of better performance) and the relative importance (weights) of the individual attributes.

Exhibit 4: Appraising the worth of iPad Mini basic model relative to Kindle Fire

Appraisal of iPad Mini16 using Kindle Fire16 as a reference				
Calculating the worth of iPad Mini16 performance advantages, by Attribute				
Attribute (measure)	Worth (\$) per unit	Performance measures		Incremental worth (\$) of iPad Mini16
		iPad Mini16	Kindle Fire16	
Screen diag (In)	55	7.9	7.0	50
Storage(GB) (GB)	5.1	16	16	0
Battery (Hrs) (Hours)	3.8	10.3	10.7	-2
Weight (lb) (Lb)	-66	0.70	0.90	13
Ease of use (1-to-5)	49	4.0	4.0	0
Display (1-to-5)	41	4.0	4.0	0
Touch response (1-to-5)	50	5.0	5.0	0
Cell (0 or 1)	122	0	0	0
MemCard (0 or 1)	9	0.00	0.00	0
Web Cam (0 or 1)	9	1.00	1.00	0
Camera (0 or 1)	29	1.00	0.00	29
GPS (0 or 1)	27	0.00	0.00	0
Sum (Total worth of iPad Mini16 performance advantages)				90
+ Reference price (Kindle Fire16 price)				210
Estimated worth of iPad Mini16 (\$)				300

This “appraisal table “ compares the performance of the Apple iPad Mini to the Kindle Fire. On many of the attributes, the evaluated performance is the same for the two models. (E.g. both score a “4” on the 5-point scale for *ease of use*.) Such tie scores do not have any impact of the estimated relative value of the two models. However, for attributes where there is a difference in performance the difference boosts the relative value of the advantaged model. For example, the iPad has a larger screen than the Kindle (7.9” vs. 7.0”), making it worth an estimated \$50 more. Also, iPad has a camera and is lighter weight. However, the iPad has shorter battery life (10.3

hours versus 10.7 hours), subtracting a small amount from its comparative worth. Summing up the differences, the bottom-line estimate is that the iPad is worth about \$90 more than the Kindle.

The Kindle was selling for \$210. If the iPad is truly worth \$90 more than the Kindle, it should be worth \$300. However, Apple sold it for \$329, i.e. slightly overpriced in this head-to-head comparison. For a price sensitive customer, this may be simply too much of a premium to pay. For customers who are less price-sensitive, this might be a luxury product on which they are willing to splurge.

### *Head-to-Head against Samsung's Galaxy Tablets*

With Apple's launch into the small-tablet category, many business journalists focused on the price of Apple's lowest priced model, asking whether it would be competitive with a ballpark price of \$200 for tablets like Nook and Kindle 16 GB models offering basic performance. There is no doubt that the business strategy team at Apple was focusing on something else – the positioning of its Mini tablets versus the models offered by its arch-rival, Samsung. Samsung had already displaced Apple as the market leader in smart phones. Moreover, in worldwide tablet shipments, from the fourth quarter of 2011 to 2012 Samsung had gained 7.7 points of market share, moving ahead of Amazon into second place. During the same time interval, Apple's market leading position slipped 8.2 points of market share.

Exhibit 5: Market share changes among the top 5 Tablet vendors

Top 5 Vendors, Worldwide Tablet Shipments, Fourth Quarter 2012 (Preliminary, unit shipments)							
Vendor	Shipments, Q4		Growth %	Market Share, Q4		Rank 2012	Delta Share Q412/Q411 Points
	2011 Millions	2012 Millions		2011 %	2012 %		
<b>Apple</b>	15.5	22.9	48	51.8	43.6	1	<b>-8.2</b>
<b>Samsung</b>	2.2	7.9	263	7.4	15.0	2	<b>7.7</b>
Amazon	4.7	6.0	27	15.7	11.4	3	-4.3
ASUS	0.6	3.1	402	2.0	5.9	4	3.9
Barnes & Noble	1.4	1.0	-28	4.7	1.9	5	-2.8
Others	5.5	11.6	109	18.4	22.1		3.7
All Vendors	29.9	52.5	75	100.0	100.0		0.0

Source: Adapted from data published by IDC Worldwide Tablet Tracker, Jan 31, 2013 (preliminary)

Take another look at these two product lines on the value map. Notice that at its launch into the small-tablet category, the Apple 16 GB and 32 GB models were positioned with both better overall performance and somewhat lower prices than comparable Galaxy models. The inference – Apple's business strategists were positioning its iPad Mini product line to offer buyers a better



deal than Samsung’s Galaxy tablets. Apple needed a foothold the small-tablet category to slow or reverse Samsung’s gains in the overall tablet market. Let’s look at this premium-end competition more closely.

Exhibit 6: Head-to-Head Value Comparison, Apple versus Samsung

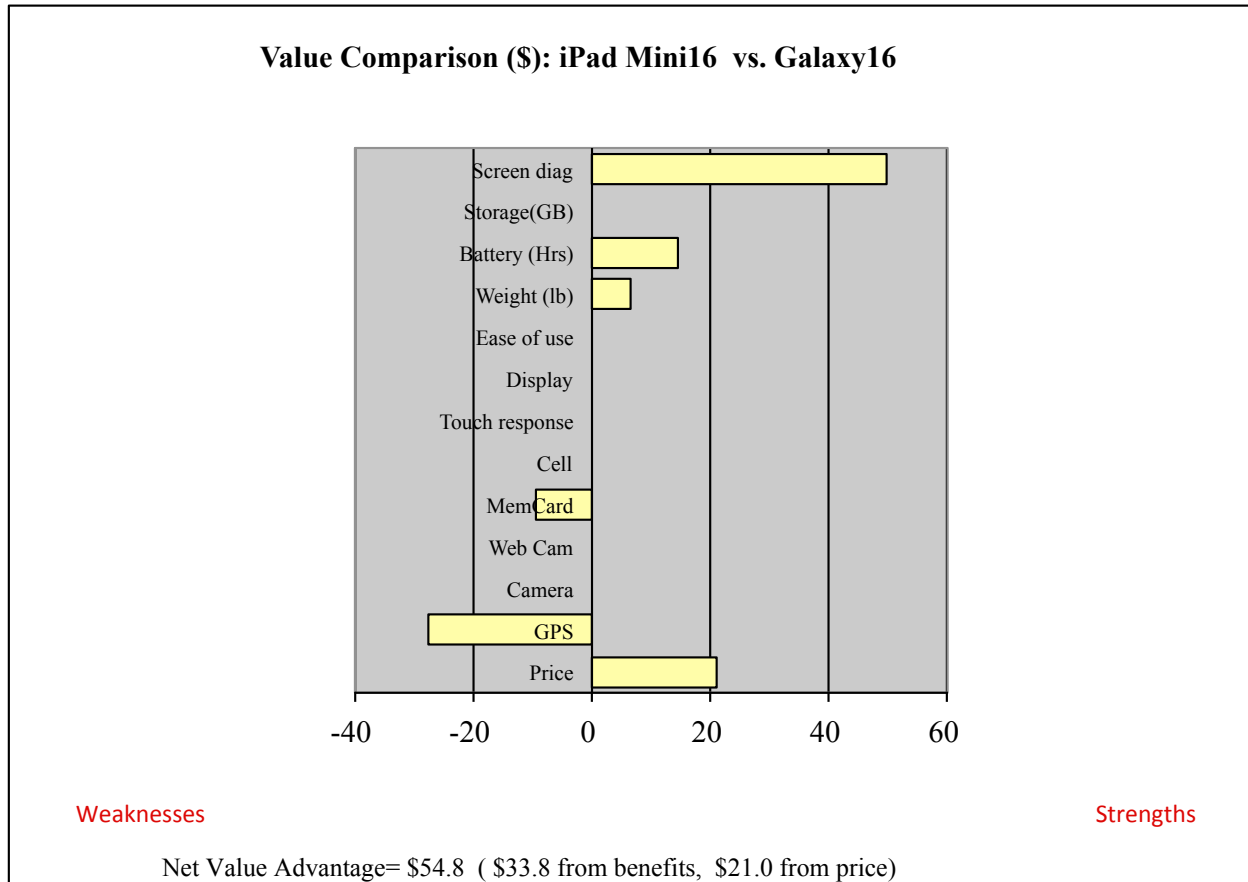


Exhibit 6 shows the key elements of Apple’s value proposition versus Samsung at launch. In this chart, positive bars represent factors where the iPad performance is better; negative bars show where Samsung is winning. The scale is in dollars, showing how much net relative value is added to the iPad Mini for each factor. Apple has performance advantages of larger screen size, longer battery life, and lower weight that are worth \$50, \$14, and \$7 respectively. Apple also has disadvantages: no memory card and no GPS that make its tablet worth \$9 and \$27 dollars less respectively. Summing the values of these performance differences, the Apple tablet is worth \$34 dollars more than the Galaxy. Moreover, it is priced \$21 lower than the Galaxy. Versus the Galaxy, the Mini is worth \$34 more and costs the customer \$21 less, which gives it a net value advantage of \$55. The same performance and value differences hold for the Mini32 versus the Galaxy32. This makes the Apple product line a better deal than the Samsung product line at the premium end of the product continuum, where Apple likes to play.

## *The Impact of Apple's iPad Mini Launch on Barnes & Noble*

Collateral damage from the iPad-Mini launch included the collapse of Barnes & Noble's Nook product line. Apple's launch of the iPad Mini pushed the Nook line deeper into the poor performance, bad-deal zone of the business strategist's value map – during the pre-Christmas period of peak sales for mobile devices. This hurt Nook's tablet sales and also undermined Barnes & Noble's potential for eBook sales. Barnes and Noble's Q4 market share fell from 4.6 in 2011 to 1.9 in 2012. On February 28, 2013 in a *Wall Street Journal* article titled, "Barnes & Noble's Nook Falls Behind," CEO William Lynch was quoted as saying, "Were going to adjust quickly." He further acknowledged that, "larger technology brands have more resonance in the multi-function tablet market than we do." In the same article, James McQuivey, an analyst with Forrester Research, Inc. noted, "What went wrong is that Apple's iPad Mini went right. Barnes & Noble's business depends on selling the devices in the Christmas quarter to drive content sales all year round."

### *Offering value to the customer*

Through the lens of customer value analysis, Apple's pricing and positioning of the iPad Mini models was consistent with the company's preference and reputation for premium performance and design at a premium price. The prices were justified by performance, including such factors as screen area, light weight, and a camera for taking pictures. At the time of launch there was nothing radical or unexpected in Apple's pricing strategy—the pricing of these products was consistent with the implied market value of the Minis' performance advantages.

Indeed, despite its high prices and critical indifference, the iPad Mini got off to a roaring start. In the first quarter of 2013, Apple's sales of tablets almost doubled from the previous year's first quarter. Of the 19.5 million tablets Apple sold in Q1 2013, about 12 million were Minis, more than 60% of the total. No doubt some of the Mini's success was at the expense of sales of the full-sized iPads. Nevertheless, the Mini features and form factor clearly struck a chord in the hearts of consumers.

The future in this fast changing market is hard to predict. Based on the launch-time value map, Apple will have to work hard to maintain a meaningful performance advantage to prevail against well-positioned and aggressively priced competitors at the lower end of its price spectrum. New competition can be expected at the high-margin premium end of the spectrum as well. The iPad Minis when introduced were unquestionably expensive, but they prevailed because they offered the customer a fair value for the money. Future success will similarly depend on offering good value against a changing and improving range of options available to the customer.

### *Evaluating the Market Attractiveness of a New-Product Concept*

From an analytical perspective, note that a product strategy team analyzing a *proposed* product-introduction (rather than a *fait accompli*, as here) would use the same methodology we've used. Key elements of this approach (Customer Value Analysis) are

- Understand the market as it is. In your analysis, include a sampling of *all* of the incumbent and anticipated products that customers are likely to view as alternatives

- Identify product attributes that truly matter to customers and evaluate the competition in terms of these attributes. Some attributes may tie directly to product specs and features, but others may require a more subjective evaluation
- Chart how the market offers different performance options to customers at different price points.
- Use the Value Map to understand what the true market value of your product is.
- Use the Product Appraisal Table or Head-to-Head Value Graph to understand the monetary value of your performance advantages and disadvantages versus key competing products, by attribute.
- Target a customized value proposition to customer segments that place more weight on attributes where you outperform the competition.

## Appendix: “Market Value” as a Benchmark for Price

Anyone who has ever bought or sold a home is familiar with the term *market value*. Real estate agents estimate market values of properties by studying recent sales. Data on selling prices reveal what customers are willing to pay – and what sellers are willing to accept – for properties with different characteristics. Real estate is not the only area in which the concept of *market value* is used. It is also likely that you have seen appraisals or tables showing the market value of a used car, boat, or baseball card. The underlying market values of such properties are determined in the interplay among competing sellers and in the choices made by customers.

There are certain markets (like real estate) in which appraisals of market value are the norm and are expected. However, for most kinds of products (e.g. specialty chemicals, health-care plans, or tablet computers), the idea of *market value* is seldom used by product managers or the marketing department. This is a shame, because *all products* actually have a warranted market value, and this can be estimated using standardized appraisal techniques. As with houses and other properties, the better products within a category have higher value than the lesser products. Companies who understand the true market value of their product are more likely than others to set prices and sales expectations realistically.

Customer Value Analysis (CVA) contains a formal appraisal methodology for estimating the value of any product. The process starts with identifying the array of competitors. It then evaluates the target product *vis-a-vis* the competing products in terms of specific performance attributes that are important to the customer. Performance on individual attributes is condensed into a single index of overall performance for comparing against competition. The value map (the plot of price vs. overall performance) can be used to estimate the fair market value. In the case of the iPad Mini, for instance, based on its overall performance versus all of the other small tablets on the market, Apple’s \$329 price turned out to be somewhat less than its warranted market value (\$347). The Apple 32GB Mini was priced at \$429, which was very close its true market value (\$428). The appraisal methodology can also identify the specific strengths and weaknesses of your product relative to alternatives, and how much these advantages and disadvantages are worth to the customer.

When the iPad Mini was introduced, analysts’ opinions varied all over the map as to what a fair price for the product would be. Such differences in opinion are normal. However, within a company, such undisciplined thinking can lead to wild mistakes in overpricing, underpricing, or mispositioning. In contrast, companies that use a disciplined process for appraising the *true market value* of their product are the most likely to set prices that will maximize growth and profitability. Customer Value Analysis offers a disciplined, repeatable process for appraising the true market value of any product.

## About Customer Value, Inc.

Customer Value, Inc. (CVI) is a business strategy consultancy founded by Bradley Gale in 1991. CVI helps product teams:

- Identify the key buying factors that customers use to size up a product
- Measure the performance of the company's products vs. the competition
- Calibrate the goodness of the deal offered by each product (performance for price)
- Prioritize ways to improve their product's performance, competitiveness, and worth

CVI's patented process and software tools enable companies to use *market-value pricing* — pricing a product knowing *its real worth in the marketplace* relative to competing products. The resulting consistency between positioning and pricing helps stem market-share losses, earn market share gains, and capture justified price premiums.

Dr. Gale is co-author of *The PIMS Principles (Profit Impact of Market Strategy) – Linking strategy to performance* and the author of *Managing Customer Value – Creating quality and service that customers can see*.