

Kindle Fire: Amazon's Heated Battle for the Tablet Market

In January 2012, as Jeff Bezos reflected on the early sales success of Amazon's Kindle Fire device, he was oddly troubled. In a little over three months, Amazon had sold nearly 5 million Kindle Fires and had captured half of the non-Apple tablet market share. Worldwide sales of e-books since the introduction of the Kindle product line had grown from less than 1 percent of all books sold to 15 percent in 2012. But Bezos was not ready to call it a success yet.

As he anticipated Apple's imminent announcement of the third-generation iPad and its entry into the textbook market, Bezos knew he would have to refine his strategy for the Kindle Fire. In addition to Apple, new entrants such as Samsung, Motorola, and Google were beginning to enter the tablet market. Furthermore, Amazon's long-time competitor in the E Ink¹-based e-readers, Barnes & Noble, was now selling a device nearly identical to the Kindle Fire called the Nook. Bezos had told investors that the Kindle Fire was the key to Amazon's future in the hardware space. The markets seemed to agree. Amazon stock had dropped \$40 since the launch of the Kindle Fire. Analysts were concerned about the Kindle product line's economics because Amazon was selling the hardware at cost, betting that content and commerce revenues would make up for the hardware price subsidy.

Bezos was wrestling with several issues with the Kindle Fire strategy. How should Amazon modify the positioning of the device in response to the new entrants in the tablet market since its launch? What was the most promising target market for the Kindle Fire, and how should it be positioned against competing products? How could Amazon turn the sales success of the Kindle Fire into business success? Would revenues and profits from commerce and content justify selling the hardware at cost? What were the likely responses of the competition?

History of Amazon

In 1999 Amazon accomplished its founding mission of becoming the world's largest online bookstore. Two years later it turned its first profit. By 2011, just fifteen years after the company

¹ E Ink was a specific proprietary type of electronic paper manufactured by E Ink Corporation and commonly used in mobile devices such as e-readers.

started out of Jeff Bezos's 400-square-foot garage, Amazon had 25 million square feet of warehouse space, reported \$50 billion in revenues, and controlled 10 percent of the North American e-commerce market (**Exhibit 1** and **Exhibit 2**). Competitors struggled to transition from brick-and-mortar-based businesses, but Amazon had repeatedly been at the forefront in the e-commerce market. From its pioneering use of user-based reviews for product comparisons to its development of 1-Click® ordering on its website, Amazon had continued to innovate. The company's marketplace for third-party vendors, introduced in 1999, helped grow its selection rapidly.

Bezos's 2010 annual letter to shareholders touted that "invention is in [Amazon's] DNA" and that the long-term interests of its shareholders were perfectly aligned with the needs and wants of its customers. This focus on the long-term, however, with repeated innovation and thrusts into new markets, had created tension with the short-term interests of investors. The \$45 fall in stock value between Q3 2011 and mid-Q1 2012 illustrated this tension between Amazon's visionary investments and public market investors (**Exhibit 3**). Investors were doubtful of the margins Amazon would attain on the new streams of revenue that it was betting would flow through its new devices.

When Amazon began offering its spare server computing power and storage space as a service in 2006, the cloud-based information technology services field was still nascent. Under the rapidly expanding Amazon Web Services (AWS) division, Amazon rolled out its Elastic Compute Cloud (EC2) platform and the Simple Storage Service (S3). AWS was expected to make up just 3 percent of Amazon's revenues by 2012, but AWS revenues were expected to almost triple in the following three years. Amazon called its "service-oriented architecture" the "fundamental building abstraction" for all Amazon technologies.²

This focus on internal technology development had led to significant benefits for customers. Through the widely popular Amazon Prime express shipping subscription service, the company had built a customer base that was motivated to always shop at Amazon.com first before they went elsewhere. This service, which for an annual fee of \$79 provided two-day express shipping on most items sold directly by Amazon, was made possible by the company's logistics innovations. Through its marketplace partners, Amazon had outsourced its long-tail³ offerings while lowering its overhead. Without the technical advancements that made the logistical infrastructure run smoothly, customers would not have embraced these partners as a seamless extension of the Amazon brand. Additionally, the advanced algorithms driving the popular product recommendations that were integrated into every product page relied on sophisticated management of the underlying data infrastructure.

Amazon, since its founding, had a strong history of investing in emerging opportunities years ahead of revenues or profitability. It took the company six years to become profitable primarily because of its commitment to innovation. It was this commitment to innovation that drove Bezos to found the Lab126 hardware development group, which developed, in extreme secrecy, the future of e-commerce: the first successful e-reader, the Kindle.

² Amazon.com, 2010 Letter to Shareholders.

³ Long tail, a term popularized by Chris Anderson in *The Long Tail: Why the Future of Business Is Selling Less of More* (New York: Hyperion, 2006), describes the retail strategy of selling a large number of unique items in relatively small quantities while selling fewer popular items in large quantities. Underpinning this strategy is the belief that the sum of many small markets is worth as much, if not more, than a few large markets.

The Emergence of E-Readers

Although the attractive prospect of reading long-form texts digitally had led to many e-readers coming to market over the years, e-books had remained a niche curiosity. The original “killer app,” the paper book, remained largely unchallenged until the advent of E Ink technology in 1997, which made reading possible in any light condition and with minimal power usage. The new crop of e-readers was born.

In 2007 the market leader was the Sony Reader. It could hold a library of up to one hundred books and was sold for \$299–\$399, depending on the accessory bundle. More than 10,000 titles were available for purchase at 75 to 85 percent of the retail price of a physical book. However, the Sony Reader was clunky to use and difficult to load content onto. Even the simple act of page-turning was slow and difficult to manage one-handed.

For more than a decade, various competitors offered iterations on this basic business model, and had sold a combined 400,000 units by the end of 2007. The Iliad by iRex, larger than the Sony Reader, was sold for \$799 and could adequately display full-sized PDF files but had similar drawbacks in content acquisition for customers. Many early adopters also used the tiny screens of a variety of personal digital assistant devices such as the Palm III and V, as well as early-generation iPhones, to read e-books. Critics cited the slow and clunky operation and general poor usability of early e-readers as book replacements as well as the inadequate e-book distribution and promotion model as reasons that the e-book had yet to jump the chasm on the innovation curve.

The Amazon Kindle

In a highly successful product launch, Amazon introduced its own e-reader, the Kindle, in November 2007. The Kindle featured a QWERTY keyboard, an onboard dictionary, and access to Wikipedia. It had memory sufficient for two hundred titles, which was expandable via an SD card. Its grayscale, passively lit screen sipped battery and thus could last for more than a week. The stark white, 10.3-ounce device with a 6-inch E Ink screen was, at first glance, similar to competitors' offerings. Under the hood, though, lay Whispernet, an EVDO cellular antenna with prepaid Sprint service that enabled wireless content delivery. At several points during the Kindle's development, Bezos sent engineers back to the drawing board to make Whispernet work seamlessly. Bezos knew the key differentiator for the Kindle would be the capability for customers to discover, purchase, and sync content quickly and easily wherever they happened to be—sans computer.

The first-generation Kindle was priced competitively at \$399. In addition to the more than 100,000 e-books offered by Amazon, customers could purchase subscriptions to nineteen newspapers (for \$5 to \$14 per month), sixteen magazines (for \$1.25 to \$3.49 per month), and hundreds of blogs (for \$0.99 per month) that would self-update wirelessly. Customers were also provided with an e-mail address specific to their device that could be used to load and convert DOC and PDF file formats for viewing on the Kindle. This service cost 15 cents per megabyte.

Prior to the Kindle's release, Amazon sent its representatives to knock on doors and cajole the major book publishers to digitize their offerings for its new e-reader. By bringing the publishers onboard, Amazon hoped to simplify the digital rights management (DRM) issues that

were slowing the move toward electronic distribution of books. The company succeeded in convincing all of the “Big Six” publishers to rapidly accelerate their e-book development and to offer their content through the Amazon e-bookstore. Amazon subsequently shocked these publishers by subsidizing the price of new titles, many of which were offered at \$9.99. This aggressive content pricing model, co-announced with the product launch, helped the first-generation Kindle sell out in the first three hours.

When Amazon started the development of its first-generation Kindle in 2006, the entire e-book market was only \$3 million and less than 1 percent of all book sales in the United States. But both e-book reader device sales and revenues for e-book readers were projected to grow substantially in the ensuing years (**Exhibit 4**). Five years later, Amazon’s revenues from e-books were estimated to have topped \$1 billion. Amazon had likely (it does not publicly release these metrics) sold a cumulative 30 million Kindle units.

As the Kindle product line evolved, Amazon continued to enhance the user experience, mostly by improving navigational features such as page-turn speed, battery life, and screen resolution, and by reducing the device’s weight and width (**Exhibit 5**). To expand the use cases for the Kindle product line, Amazon developed a larger version of the device. The \$549 Kindle DX featured a 10-inch screen, making it the ideal e-reader for displaying figures and tables from textbooks or business documents.

As the e-reader market matured, price pressure on the devices slowly grew. Prior competitors such as Sony, iRex, and Hanlin released updated, cheaper devices, but importantly Barnes & Noble (B&N) jumped into the field as well (**Exhibit 6**). Each generation of the Kindle had focused on improving the user experience, lowering the cost, and growing the general adoption of Amazon e-books and other Amazon content. However, the newer entrants forced Amazon to begin to discount its devices considerably (**Exhibit 7**).

Amazon used its installed base⁴ of Kindle owners to push higher volumes of e-books, which had significantly lower distribution costs compared to physical books. The company’s profit per title fell from \$13 for a new-release hardcover to a mere \$3, but the increase in volume compensated for this loss. Given that the gross margin on each Kindle device was barely 5 percent and that the margin for each e-book was 20 to 30 percent, the Kindle devices were arguably a tool for getting the Amazon ecosystem of content into the hands of the customer.

With each e-book purchased from Amazon, customers were further committing themselves to the Amazon ecosystem, a completely unheard-of benefit in the traditional print space, where customers had complete independence in choosing a retailer. Bezos shrewdly knew that this lucrative customer base needed to be locked in before a competitor, such as B&N, could do the same.

⁴ Installed base refers to the total number of operating systems or products actually in use (i.e., that customers have installed), as opposed to market share, which only measures units sold. Analysts view the installed base as a more reliable measure of a platform’s popularity. See http://en.wikipedia.org/wiki/Installed_base (accessed January 16, 2014).

E-Book Ecosystems

The advent of e-books meant that the traditional methods of book publishing and selling had to adapt to the digital platform. Book distributors began to develop entire ecosystems around the content, publication, and delivery of e-books. E-booksellers had to forge relationships with major publishers to make e-books available and added to their online portfolios. They developed proprietary platforms to adapt to this digital transition, which meant that competing platforms and ecosystems were controlled by the major players—primarily Amazon, followed by Apple and to a lesser extent, Google eBookstore and Barnes & Noble. However, the existence of competing e-book formats meant that digital books did not gain broad popularity until Amazon launched the Kindle e-reader. E-books could be purchased on the Amazon website or directly through the Kindle device via a 3G or Wi-Fi connection for e-book delivery. Amazon's proprietary system was developed initially for its Kindle devices but was later adapted to the world of applications (apps) to encourage a cross-platform reading experience. Not only could books be read on the Kindle but e-books purchased on Amazon could now be read on different platforms, for instance, on iPads and iPhones, personal computers, and Android devices. (By contrast, books purchased from Apple could only be read on Apple devices.) To protect its ecosystem, however, Amazon made it difficult for books purchased outside of Amazon to be accessed on the Kindle device or through Kindle apps.

When Amazon started selling \$9.99 e-books in 2007, the major book publishers were not happy to see the erosion of the agency-based pricing model they had enjoyed for more than a century. When approached by B&N in 2008 and Apple in 2009 to develop e-books for their new tablets, book publishers were eager to reassert their favored agency-based pricing model. B&N and Apple, as new entrants into the e-book market, were willing to cede pricing control back to the publishers in order to rapidly gain access to large content libraries for their devices. This move later forced Amazon to follow suit for e-book pricing in late 2009, though these actions launched several anti-trust, price-fixing lawsuits against the publishers and Apple. Consumer expectation of e-book pricing had shifted, however. For most popular titles, e-book prices remained at \$9.99 (\$13.99 for new releases), a far cry from the old \$26 price of a hardcover book.

An area of contention among e-booksellers was competition for content sales through apps on smartphones, third-party e-readers, and computers. Amazon, Sony, Google, and B&N sold e-books through their own branded apps on all the major platforms (**Exhibit 8**). These apps reduced the switching costs for customers by making the DRM-protected content they purchased from a given retailer available on all their mobile devices and computers.

In July 2011 Apple announced that it would remove all applications from its App Store that did not use Apple's "in-app purchase" platform. Critically, this platform directed a 30 percent cut of all sales to Apple. Apple's change in policy set the stage for its announcement of its cross-platform iBooks App bundled with the iOS 5 release in October 2011. Apple's counter-stroke was an attempt to lock out sales by competitors on its devices and to simultaneously offer its own partners' content in their place.

Barnes & Noble E-Readers

In October 2009 B&N launched its Nook product line. The Nook, an E Ink e-reader similar to the Kindle, was B&N's attempt to capitalize on Amazon's success in e-books. The Nook featured

a 6-inch E Ink screen, a seven-day battery life, Google's Android operating system, native PDF support, and wireless access to the B&N e-bookstore through prepaid AT&T cellular service.

B&N tried to undercut the Amazon Kindle 2 (then priced at \$359) by pricing the Nook at \$259. A price war ensued. Second-generation Kindles fell from \$359 in early 2009 to \$259 after the Nook's launch. As the two largest U.S. booksellers vied for the leading position, e-reader prices fell to less than \$200 in 2010 and then to less than \$100 in 2011 (for the simplest low-end devices from each product line). During this three-year period, sales of e-readers grew from less than 1 million units per year to more than 8 million in the United States. Both B&N and Amazon were focused on getting their customers to build their digital libraries as quickly as possible.

In contrast to Sony and other early Kindle competitors, B&N copied Amazon's entire e-reader/e-book business model. B&N saw the writing on the wall and knew that its traditional book retailer business model was in major decline. It secured e-book deals with its publisher business partners, outsourced the development of the Nook's hardware and firmware, and began a major push to drive Nook sales to the forefront of its physical as well as online stores. Employee retention and compensation metrics were amended to focus on Nook sales per shift, and company profits were divided into two categories: digital (profitable and growing for 2011) and traditional (unprofitable for 2011).

B&N provided one truly unique feature for all Nooks: customers had free Wi-Fi access to read the entire B&N library of e-books in its stores—a popular pastime given the Starbucks coffee shops located in each store. Subsequent versions of the Nook added touch support, more memory, a Wi-Fi-based Internet browser, and a “book-lending” capability compatible with other Nook devices. With the launch of the Nook Color (November 2010) and the follow-on Nook Tablet (November 2011), B&N sought to differentiate as the bargain *color* e-reader. These devices featured access to third-party apps in the B&N Marketplace and support for multimedia content.

Apple Introduces the iPad

Apple ported its iPhone operating system (iOS) to the tablet form factor⁵ in April 2010 with the iPad. Its beautiful 11-inch touchscreen immediately drew in customers. The iPad was basically a larger version of the popular third-generation iPod Touch, except Apple had painstakingly removed the time lag between a touch and an onscreen response. The responsive, pointer-less operating system allowed for numerous use cases that far exceeded those offered on the tiny screen of an iPod or iPhone and put the Apple experience comfortably in the lap of the high-end customer.

The iPad immediately became one of the most sought-after devices of 2010. The \$499 base model had 16GB of storage, which could be doubled for \$100. An optional cellular antenna could be purchased for \$139 with an a la carte monthly data service plan from AT&T Wireless. Most Apple stores sold out of all models the first day. Apple sold roughly 1 million units the first week, and users continued to wait in lines for new shipments for weeks after its launch. The iPad broke open the long-underserved tablet market, with 15 million sold by 2010 year-end. Critics were apt

⁵ In computing, “form factor” refers to the specifications of the motherboard (e.g., the dimensions, the type of power supply, the location of mounting holes, etc.).

to list a litany of features—such as a camera, USB port, and more—that the iPad “lacked,” but it became clear from the sales numbers alone that Apple had found the sweet spot for what consumers wanted in a device that sat squarely between smartphone and laptop.

In March 2011 Apple released the iPad 2, which upped the ante on its competitors. The iPad 2 had twice the processor speed (dual-core A5) of the original iPad. It was 15 percent lighter and 33 percent thinner and featured high-resolution front- and back-facing cameras to facilitate Apple’s new videoconferencing app, FaceTime. Apple had succeeded in creating a thriving tablet market, selling a total of 55 million iPads since the initial launch.

Tim Cook, Apple’s new CEO, became known for his fondness for pushing the idea that Apple’s slew of “iDevices” were ushering in the “post-PC era” that the late Steve Jobs had envisioned. Bezos likely knew, as March 2012 approached, that Apple would soon update the iPad product line and further raise the bar on the premium tablet space. What likely most concerned him, though, was whether Apple would release an “iPad mini” device at a lower price point to compete with the Kindle Fire. An iPad for less than \$300 would definitely change the market environment for e-readers.

Google Android Tablets

The Open Handset Alliance was founded in 2006 to support the development of a unified mobile operating system experience for smartphones. Original equipment manufacturers (OEMs) Samsung, Motorola, LG, QUALCOMM, Broadcom, and HTC partnered with carriers T-Mobile and Sprint Nextel under Google’s leadership to develop the Android OS. These OEMs brought a slew of slick, touchscreen-based smartphones to market.

Apple’s success with porting the iPhone user experience (the iOS) to the tablet form factor attracted the Android OEMs. Android tablets such as Samsung’s line of Galaxy tablets and Motorola’s Xoom tablets came in several screen sizes (7-inch to 11-inch), packed sophisticated chipsets and graphics, came with high-resolution cameras, and had integrated Wi-Fi and even cellular antennae in some models. These tablets were sold through wireless carriers as well as via traditional electronics outlets at prices ranging from \$499 to \$799 depending on the feature set.

At the Consumer Electronics Show in January 2011, no less than twenty-one different tablets were introduced. This deluge, along with the release of the iPad 2, led to 2011 being dubbed the “year of the tablet.”⁶ Android tablet OEMs faced rapid commoditization of their devices, and competition for enhanced hardware specifications quickly led to shortened product life cycles, decreased profitability, and lower-than-predicted sales. Apple’s sale of 15 million (67 percent market share) iPads in Q4 2011 alone suggests that 2011 turned out to be the year of the iPad (**Exhibit 9**).

⁶ Nicholas Deleon, “Deloitte: 2011 Will Be the Year of the Tablet (Say Goodbye to Your Laptop),” *TechCrunch*, January 20, 2011.

Introduction of the Kindle Fire

On September 28, 2011, Amazon previewed the Kindle Fire to the technical press in Seattle, Washington. The new tablet came equipped with a 7-inch, color LCD touchscreen, a Wi-Fi radio, a powerful dual-core processor, a fixed 8 GB of internal storage, and free cloud storage for content purchased from Amazon (**Exhibit 10**). The Kindle Fire came preloaded with a modified version of the Google Android mobile OS.

Bezos, in his announcement, referred to the Kindle Fire as “the culmination of the many things we’ve been doing for 15 years.” He went on to say, “We asked ourselves, ‘Is there some way we can bring all of these things together [Amazon Web Services, Prime, Kindle, instant video streaming, and the app store] into a remarkable product offering customers would love?’ Yes, the answer is Amazon Kindle Fire.”⁷ By leveraging its considerable cloud-based resources, Amazon packed numerous unique features and services into its new product. The Kindle Fire featured Amazon Silk, a cloud-accelerated web browser. By handling much of the computation necessary to render webpages in the cloud, Amazon hoped that Amazon Silk would be a differentiator for the Kindle Fire.

The Kindle Fire came with tens of thousands of preapproved apps and games available for purchase and download through the Amazon app market. Amazon provided 18 million movies, TV shows, songs, and magazines available for streaming or download. Amazon Prime subscribers received streaming access to more than 13,000 movies and TV shows for free. All new Kindle Fires came with a free one-month subscription to Amazon Prime to encourage customer integration into the Amazon ecosystem of content, goods, and services.

The \$199 Kindle Fire was rumored to have reached 50,000 preorders per day during the two-week preorder period. According to Anthony DiClemente from Barclays, Amazon sold 3–5 million units of the Kindle Fire in Q4 2011, likely generating revenues in excess of \$1 billion. The Kindle Fire was widely rumored to be sold at cost or even at a loss, given the relatively sophisticated specifications at such a discounted price. Amazon, true to form, simply stated in the Q4 2011 earnings report that the Kindle Fire was the bestselling, most wished for, and most gifted device of the holiday season.

Apple would be responding soon with its update of the iPad product line, and Bezos feared a “mini-iPad” at a competitive price might strike hard at his initial success. The unproven Kindle Fire, despite its strong sales numbers, faced numerous challenges. Initial criticisms of the device focused on its sometimes lagging display, shorter-than-advertised battery life, and a number of smaller feature-set complaints. Although a firmware update would resolve the first two of these problems, the feature-set complaints would have to wait until a new version of the Kindle Fire was released.

Customer Segments for the Kindle Fire

The initial Kindle Fire launch had broad aims in an effort to probe the market and learn which use cases and customer segments would respond most favorably to the new product. Although

⁷ Steven Levy, “Jeff Bezos Owns the Web in More Ways Than You Think,” *Wired*, November 13, 2011; Shara Tibken, “Amazon Challenges iPad With ‘Fire,’” *Wall Street Journal*, September 29, 2011.

this “probe-and-learn” process was acceptable at the start, the time had come for Amazon to be more focused in defining its target audience. There were several possible target segments the company could consider.

MEDIA JUNKIES

Amazon already attracted the most avid consumers of media because of its bargain prices for content and its huge selection. The “media junkie” market had evolved in the digital age to rabidly consume multimedia content from numerous channels, often simultaneously. Indeed, one of the primary use cases for tablets, according to Nielsen, was in front of the TV.⁸ As all content transitioned to digital, the case for targeting these most avid of users grew stronger. U.S. consumers were expected to purchase more music digitally than on CD by 2012. Additionally, DVD sales had fallen more than 20 percent in 2011, whereas streaming had risen by 33 percent. Subscription streaming services such as Hulu and Netflix for video and Spotify for audio were attracting millions of customers. Amazon was primed to offer an alternative to these, but only if they could get users to switch.

Media junkies were quite price conscious because of the scale of their purchasing. Amazon fit this niche well because of its extremely competitive pricing on its music, video, and reading content. The Kindle Fire platform was ideally suited for downloading popular content through the Prime Instant streaming feature and for purchasing the more obscure titles that the long tail demanded through the massive Amazon store.

For customers who desired having tens of thousands of books, magazines, music, and movies available in one affordable handheld device, the Kindle Fire would be ideal. But would the demanding tastes of these customers mean that they would take a pass on the Kindle Fire’s smaller screen? For most media junkies, an ideal tablet would need to have a high-resolution screen and a superior graphics chipset. Would these price-sensitive customers gorge on the free content through the Prime Instant service and pass up purchasing Amazon content? Additionally, would Kindle Fire customers increase their content consumption after purchasing a Kindle, or were they at their limit already?

CHILDREN AND MOBILE GAMERS

Children were a relatively untapped market for tablets. Handheld gaming devices had been around for decades, but few computers or devices had been created specifically to appeal to children. Although children were not favorable targets for the commerce aspects of Amazon, nor were they able to purchase apps on their own, they did heavily influence the purchasing behavior of their parents. U.S. parents reported that almost 30 percent of the apps on their tablets and smartphones were downloaded for their children. Nielsen reported that in 70 percent of U.S. households that owned tablets, children under the age of 12 used them frequently, and the primary children’s use was to play games.⁹

Handheld gaming on tablets and smartphones represented the fastest-growing gaming market for 2009–2011. At more than \$20 billion in the United States and \$57 billion globally in 2009, the

⁸ Nielsen Newswire, “In the U.S., Tablets Are TV Buddies While eReaders Make Great Bedfellows,” May 19, 2011, <http://www.nielsen.com/us/en/newswire/2011/in-the-u-s-tablets-are-tv-buddies-while-ereaders-make-great-bedfellows.html>.

⁹ Nielsen Newswire, “American Families See Tablets As Playmate, Teacher and Babysitter,” February 16, 2012, <http://www.nielsen.com/us/en/newswire/2012/american-families-see-tablets-as-playmate-teacher-and-babysitter.html>.

gaming market was a high-value prize and an untapped market for Amazon. By the end of 2011, there were 15 billion apps downloaded from the Apple App Store and 10 billion from the Android Market, later known as Google Play. Games made up more than 25 percent of all available apps and occupied 30 percent of the top one hundred apps in both stores. Many parents, however, still balked at giving children their own \$600 iPad or even a low-end \$500 Android tablet that they could lose or break.

At less than \$200, the Kindle Fire was considerably cheaper than other tablets. The screen was made of Gorilla Glass® and its smaller size made it more rugged than the iPad and some of the larger Android tablets. This combination made it an attractive tablet for children. The addition of a long-lasting battery and a small, hand-friendly, tactile rubberized coating was enough to push the product to the top of many 2011 Christmas lists.

However, the Kindle Fire's slower processor, smaller screen, and limited memory capacity might weaken its perception as a gaming platform. Third-party developers might be hesitant to create special versions of their games expressly for the Kindle Fire. These developers would need to be managed to ensure adequate availability of hit titles in the Amazon App Marketplace.

HIGHER EDUCATION

The higher education industry made an attractive market for transition to digital books. Amazon had served the education market for years through its new and used textbook businesses but had failed to transition these customers to digital. Amazon's first attempt, the 10-inch-screen Kindle DX, had failed to catch on broadly, likely because of its high price point (\$459) and its grayscale screen. By 2012, the more than \$10 billion new-textbook market had remained relatively untapped by digital alternatives, despite these customers being the largest consumers of Amazon's core service: books.

To succeed in this market, Amazon would need to create a complex set of business-to-business partnerships with colleges, universities, and their bookstores to manage the timely distribution and updating of e-texts. Because students tended to be tech-savvy, adoption of the devices was likely, if adequate content could be made available. And the value proposition of reduced-price textbooks was compelling for students, who craved bargains on their expensive yearly book bills.

Textbooks were exceedingly expensive compared to trade books. Publishers traditionally faced inflated costs as a result of limited-run productions for many texts, and these additional costs were usually passed on to customers. These books also tended to be considerably larger and contained more glossy photos, figures, and equations than the average book. The high costs, in addition to the price sensitivity of students for textbooks, had led to the explosion of the online secondary market, from which Amazon had profited greatly.

College students faced with heavy backpacks and steep prices for their textbooks were very interested in reducing the load both physically and financially. Amazon was the largest online seller of new textbooks and thus had a large customer base to advertise to. This made the textbook market very attractive to Amazon, which could leverage its national brand and partnerships with publishers to bring e-textbooks to the entire U.S. market quickly if the use case could be proven.

By 2011, B&N had partnered with several universities to offer its Nook Color™ e-reader to students through campus bookstores. Titles on the Nook were 30 to 50 percent cheaper than their

paper alternatives. These titles were also not transferable, which avoided the growing problem—for publishers, at least—of the secondary used market for textbooks. This limited trial by B&N represented a considerable threat to Amazon in this emerging market.

However, bringing textbooks to the Kindle Fire would mean updating its file formats significantly. Digital textbooks meant Amazon had to develop the capability to handle large figure and graph display, robust highlighting and annotation features, and complex equation display (which was unavailable in the current MOBI format). The smaller screen was also a significant hindrance to publishers; their offerings would need to be redesigned for the Kindle Fire. Some publishers had shown willingness to do this with B&N Nook and on the iPad's iTextbook platform, but Amazon had yet to finalize such deals. The iTextbook platform, though still nascent, showed what the premium product in the market might look like. Amazon had yet to figure out how to move a bargain product into this space.

Positioning the Kindle Fire

Multiple new entrants had converged on the tablet and e-reader markets at which the Kindle Fire was targeted. These direct competitors were touted by analysts as direct responses to Kindle's explosive growth in the e-book and periodical market and to the growing reading and web-surfing habits of the U.S. population in general. By Q4 2011, nearly 25 percent of U.S. Internet users were estimated to have some sort of tablet device (**Exhibit 11**). Analysts wondered if the Kindle Fire could be a credible low-cost entrant into the tablet market. Steven Levy of *Wired* magazine wrote that "the long-awaited Amazon tablet . . . represents [Bezos's] most ambitious leap into the hearts, minds, and wallets of millions of consumers."¹⁰

Amazon faced competition on numerous fronts. One of its most promising businesses, selling e-books to Kindle users, was now being attacked head-on by Apple's iBooks and Newsstand apps, in addition to the stiff e-book competition it had received from B&N for the past three years. B&N's Nook tablet was also beginning to push into the education market at universities and colleges in the United States. The mobile gaming market was in renaissance, with gesture- and gravity-based short-play games thriving on tablets and smartphones. And media junkies had a plethora of choices in buying and consuming content. For Amazon content alone, they could now find, purchase, and consume content on nearly three hundred devices.

POSITIONING THE KINDLE FIRE VERSUS THE iPad

The tablet market was dominated by the first-mover iPad (2010) and subsequent iPad 2 (2011) offerings from Apple. These feature-rich devices succeeded where other tablets had failed by expertly walking the tight line between smartphone and laptop. Apple's strategy was to teach its customer base to use the iOS on the iPhone and iPod Touch and then graduate them to a larger-screen device that was more fun and convenient to browse and play on. The couch (70 percent) and the bed (57 percent) were the most popular places for tablet use, according to Nielsen Research.¹¹ Analysts, of course, began comparing the Kindle Fire to the iPad even before

¹⁰ Levy, "Jeff Bezos Owns the Web in More Ways Than You Think."

¹¹ Nielsen Newswire, "In the U.S., Tablets Are TV Buddies."

it was announced. Would the Kindle Fire be an “iPad killer?” Or, as one headline read, “Help! Santa can’t afford the iPad. Will the Kindle Fire do?”¹²

On specifications, the iPad was a multipurpose, Swiss army knife-type device. Importantly, however, it was three to four times as expensive as a Kindle Fire, as well as quite a bit larger and heavier. Amazon had specifically created the Kindle Fire to be an affordable consumption device. Would the minimum viable product¹³ beat out the feature-packed iPad? Or would consumers become frustrated by its slower speed, smaller memory, and more limited selection of apps? Both devices were exceptional at consuming streaming video, web surfing, and general reading. So would customers be satisfied with these uses, or would the Kindle Fire’s limitations irk them over time and lead them to opt for the iPad?

A battlefield on which Amazon was better equipped to fight was providing a wide and deep content catalog. Both Apple and Amazon were maneuvering to rapidly cement partnerships with content providers in the hopes of attracting customers by having the largest catalog of media. Early in 2012, Amazon had inked a deal with Viacom to provide a large number of videos through its Prime Instant Video service. This deal, combined with existing partnerships with the major networks, made the Amazon TV offerings significantly richer than those available on competing products.

POSITIONING THE KINDLE FIRE VERSUS THE NOOK TABLET

The Nook and the Kindle Fire were extremely similar (from the hardware point of view) and were following the same pricing strategy as the earlier e-readers. Bezos worried that another price war might ensue. B&N had pursued the additional strategy of offering subsidies for Nooks at the point of sale if subscriptions were purchased with the device. For example, a \$19.99 per month subscription to the *New York Times* netted the customer a \$100 subsidy on the purchase of any Nook product, which made the Nook tablet only \$99. Bezos knew he could make this play as well but remained hesitant to give the appearance that Amazon was willing to “give away” its Kindles. He also knew that while B&N had posted a \$6.6 million loss (\$0.17 per share) for Q2 2011, it had increased its recently consolidated Nook business revenue 85 percent to \$220 million in the same quarter.

Although the devices could not differentiate on hardware specifications, they did offer very different user experiences. Amazon’s focus was on its own content and services, whereas B&N focused on providing its own text-based content and allowing third parties to deliver the rest. The Hulu and Netflix apps came preinstalled on the Nook, along with the Google media store, Google Play. However, Amazon differentiated with its Silk web browser, which enhanced the experience of browsing on a limited device. Amazon also had numerous cloud-based services such as the Whispersync® feature, which kept the user’s place in a given book or video across all Amazon apps.

POSITIONING THE KINDLE FIRE VERSUS KINDLE E-READER

The traditional Kindle e-reader still maintained strong appeal with avid readers for its ability to wirelessly purchase new books and magazines and its eye-pleasing E Ink screen, as well as its

¹² Marguerite Reardon, “Help! Santa Can’t Afford the iPad. Will the Kindle Fire Do?” *CNET*, November 25, 2011.

¹³ Coined by Frank Robinson and popularized by Eric Reis, a “minimum viable product” refers to an iterative process that allows a product to be launched with basic features.

long battery life. But for these same users the Kindle faced stiff competition from newer tablets to be customers' "third device" (the first and second being a laptop and a smartphone). For avid readers, the new Kindle Touch (\$99 for the option with advertising "offers" on its lock screen) was an optimum device, but these same users might consider consolidating their devices if a strong reading experience was offered on one of the competing tablets and if they could get the battery life they wanted. The youngest and often most tech-savvy student customers were already reading more and more online, eschewing traditional reference sources in favor of wikis and blogs. A web-enabled tablet offered a strong use case for these customers, as did an electronic medium for their books for class.

Would the Kindle Fire cut into the business of selling Kindles? Bezos believed that customers should want to buy both.¹⁴ His optimism that both the Kindle Fire and the Kindle would find places in his customers' lives seemed to signal that these devices might continue to get cheaper and cheaper. Given the tough competition for e-readers from tablets and larger-screen smartphones, the future profitability of dedicated e-readers was uncertain at best. Bezos was betting that the integration of the Kindle e-book ecosystem via the Kindle family of apps would maintain value for these special-purpose devices.

Pricing and Business Model Decisions

The Kindle Fire was no exception to Amazon's traditional one-two punch of low margins combined with large-scale delivery. This model had succeeded for the company in market after market. Bezos wondered, however, whether the revenue streams from the Kindle Fire would be sufficient to meet the considerable costs of serving up the bevy of content that users desired. Particularly important and difficult to find was the sweet spot between the breadth of content sufficient to attract customers and a bloated library with excessive licensing costs. The success of the Kindle Fire business model would hinge on the demand for digital content, incremental online commerce sales, and price sensitivity for hardware. Bezos was betting that the integration of Amazon content, cloud-based storage, and the convenience of Amazon Prime all at a bargain price would prove to be a compelling proposition and profitable business model.

HARDWARE REVENUES

At \$199, the Kindle Fire was well positioned to undercut the tablets currently on the market. For the first run of production, the components and labor were slated to be near \$200. This meant that Amazon was selling the Kindle Fire at cost as a loss leader for content sales. Many analysts wondered if Amazon should have gone even lower with the Kindle Fire's hardware price in order to emphasize the "razor-razorblade" model¹⁵ that Amazon was betting on. They pointed to the cellphone market, in which devices such as the iPhone (which cost more than \$600) were subsidized heavily by wireless carriers in return for a long-term subscription contract. Was it possible for Amazon to offer the Kindle Fire for \$149, \$99, or even free, in return for customers signing up for an enhanced version of its Amazon Prime subscription service that would require them to commit to purchasing a minimum amount of content and products over a two-year

¹⁴ Lance Ulanoff, "Amazon CEO Jeff Bezos: Why Is This Man Smiling?" *Mashable*, September 24, 2013, <http://mashable.com/2013/09/25/jeff-bezos-interview>.

¹⁵ In this model, dependent goods are sold at different prices. One product is sold at a discount, while another is sold at a considerably higher price to make up for the loss.

period? Other experts felt that Amazon was leaving money on the table because the Kindle Fire was already priced so far below the iPad.

CONTENT REVENUES

As more and more music, movies, and books were consumed in digital form, online content revenues were expected to be a key driver of revenues from Kindle Fire customers.

ABI Research estimated that an average Kindle Fire customer would buy about \$10 per month in content (music and movies), which would increase 10 percent annually over the expected two-year life of the Kindle Fire. Amazon netted a gross margin of 30 percent on content sales. An RBC Capital survey of Kindle owners found that the average customer purchased three e-books per quarter, at an average selling price of \$10 per book. Amazon's gross margin for e-books was 20 percent. Amazon expected a 10 percent increase in e-book purchases on an annual basis.

COMMERCE REVENUES

Amazon had boasted to its investors that Kindle owners purchased 3.3 times as many e-books than print books once they switched to digital. Bezos hoped that the Kindle Fire would have a similar effect on sales of physical products sold on its website. Customers in the post-PC era would increasingly be making their purchases based on convenience. The Kindle Fire offered a pleasing color video-capable device ideally suited to shopping from the couch. The dedicated Amazon device, combined with the convenience of Amazon Prime, would likely motivate customers to increase the proportion of online purchases they made through Amazon. The average Kindle Fire customer was expected to purchase about \$50 per month in incremental products and services from Amazon, at an average gross margin of 20 percent. Amazon estimated that these commerce purchases would increase by 5 percent per year.

ADVERTISING REVENUES

Amazon had built advertising for its retail goods and services into the pricing model for the newest generation of Kindle e-readers. The Kindle device became an omnipresent billboard for Amazon to serve ads to its customers. Millennial Media, the second-largest mobile ad network in the United States, reported at the end of 2011 that the Kindle Fire was seeing a daily increase of 19 percent in overall ad impressions on its network. That translated to a monthly rate of about 300 million advertising impressions. Amazon could expect an average CPM (revenue per thousand impressions) of about \$10. However, users could pay \$30 to permanently dismiss all the ads on the Kindle Fire. An estimated 20 percent of owners were expected to choose this option. Advertising impressions would decrease in subsequent years, but the downward pressure on CPM would offset the increase in installed base so that advertising revenues would essentially remain flat in subsequent years.

APPLICATION MARKETPLACE REVENUES

The Amazon App Marketplace, a curated version of the Android Market, ensured an optimum experience for its customers. App purchases promised to be a significant source of revenue for Amazon. In a span of just eighteen months, the Amazon AppStore had grown to 50,000 apps after it debuted in March 2011 with just 4,000. Amazon took a 30 percent cut of the sales price (the same percentage Google and Apple took from their own app stores). It was estimated that the Amazon AppStore had logged about 180 million downloads over the first

eighteen months. Research also indicated that about 10 percent of apps were paid apps, and the average paid app generated \$1.29 in the Amazon AppStore. App revenue was estimated to increase by 20 percent each year.

Conclusion

Amazon was betting that the end-to-end Kindle Fire experience was superior to buying from Amazon on the iPad. Apple, on the other hand, was betting that the Kindle Fire was not quite good enough. As Bezos considered the myriad announcements by competitors likely to come in the following few weeks, he still wondered whether his gamble on the tablet market would be a success. By reaching further into the hardware market, he had exposed Amazon to the grueling product cycles and often-fickle whims of technology customers. Would these customers appreciate the Kindle Fire's value proposition? Who should be the core target for the product? Would the Kindle Fire deliver on the various revenue streams laid out for it? Or would customers just load up on the free content and drain Amazon's servers on subsidized hardware? As the embodiment of the Amazon experience, the Kindle Fire was particularly well-situated to signal to investors the future growth prospects of Amazon's businesses.

Exhibit 1: Amazon Financials

	Year Ended December 31,		
	2011	2010	2009
NET SALES (\$ in millions)			
North America			
Media	7,959	6,881	5,964
Electronics and other general merchandise	17,315	10,998	6,314
Other ^a	1,431	828	550
<i>Total North America</i>	26,705	18,707	12,828
International			
Media	9,820	8,007	6,810
Electronics and other general merchandise	11,397	7,365	4,768
Other ^a	155	125	103
<i>Total international</i>	21,372	15,497	11,681
Consolidated			
Media	17,779	14,888	12,774
Electronics and other general merchandise	28,712	18,363	11,082
Other ^a	1,586	953	653
<i>Total consolidated</i>	48,077	34,204	24,509
YEAR-OVER-YEAR PERCENTAGE GROWTH (%)			
North America			
Media	16	15	11
Electronics and other general merchandise	57	74	43
Other	73	50	23
<i>Total North America</i>	43	46	25
International			
Media	23	18	19
Electronics and other general merchandise	55	54	53
Other	24	22	9
<i>Total international</i>	38	33	31
Consolidated			
Media	19	17	15
Electronics and other general merchandise	56	66	47
Other	66	46	20
<i>Total consolidated</i>	41	40	28
YEAR-OVER-YEAR PERCENTAGE GROWTH EXCLUDING THE EFFECT OF EXCHANGE RATES (%)			
International			
Media	16	18	20
Electronics and other general merchandise	47	57	56
Other	18	24	19
<i>Total international</i>	31	34	33
Consolidated			
Media	16	16	16
Electronics and other general merchandise	53	67	48
Other	66	46	22
<i>Total consolidated</i>	37	40	29

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Exhibit 1 (continued)

	Year Ended December 31,		
	2011	2010	2009
CONSOLIDATED NET SALES MIX (%)			
Media	37	43	52
Electronics and other general merchandise	60	54	45
Other	3	3	3
<i>Total consolidated</i>	100	100	100

^a Includes non-retail activities, such as Amazon Web Services, miscellaneous marketing and promotional activities, other seller sites, and Amazon's co-branded credit card agreements.

Exhibit 2: Amazon Earnings Report

**AMAZON.COM ANNOUNCES FOURTH QUARTER SALES UP 35% TO \$17.43 BILLION;
KINDLE DEVICE SALES NEARLY TRIPLE DURING THE HOLIDAYS**

SEATTLE—(BUSINESS WIRE)—January 31, 2012—Amazon.com, Inc. (NASDAQ: AMZN) today announced financial results for its fourth quarter ended December 31, 2011.

Operating cash flow increased 12% to \$3.90 billion for the trailing twelve months, compared with \$3.50 billion for the trailing twelve months ended December 31, 2010. Free cash flow decreased 17% to \$2.09 billion for the trailing twelve months, compared with \$2.52 billion for the trailing twelve months ended December 31, 2010.

Common shares outstanding plus shares underlying stock-based awards totaled 468 million on December 31, 2011, compared with 465 million a year ago.

Net sales increased 35% to \$17.43 billion in the fourth quarter, compared with \$12.95 billion in fourth quarter 2010. Excluding the \$101 million favorable impact from year-over-year changes in foreign exchange rates throughout the quarter, net sales would have grown 34% compared with fourth quarter 2010.

Operating income was \$260 million in the fourth quarter, compared with \$474 million in fourth quarter 2010. The favorable impact from year-over-year changes in foreign exchange rates throughout the quarter on operating income was \$5 million.

Net income decreased 58% to \$177 million in the fourth quarter, or \$0.38 per diluted share, compared with net income of \$416 million, or \$0.91 per diluted share, in fourth quarter 2010.

“We are grateful to the millions of customers who purchased the Kindle Fire and Kindle e-reader devices this holiday season, making Kindle our bestselling product across both the U.S. and Europe,” said Jeff Bezos, founder and CEO of Amazon.com. “Our millions of third-party sellers had a tremendous holiday season with 65% unit growth and now represent 36% of total units sold.”

Full Year 2011

Net sales increased 41% to \$48.08 billion, compared with \$34.20 billion in 2010. Excluding the \$1.09 billion favorable impact from year-over-year changes in foreign exchange rates throughout the year, net sales would have grown 37% compared with 2010.

Operating income decreased 39% to \$862 million, compared with \$1.41 billion in 2010. The favorable impact from year-over-year changes in foreign exchange rates throughout the year on operating income was \$53 million.

Net income decreased 45% to \$631 million in 2011, or \$1.37 per diluted share, compared with net income of \$1.15 billion, or \$2.53 per diluted share, in 2010.

Source: “Amazon.com Announces Fourth Quarter Sales Up 35% to \$17.43 Billion; Kindle Device Sales Nearly Triple During the Holidays,” Amazon.com press release, December 31, 2011.

Exhibit 3: Amazon Stock Price Following the Kindle Fire Announcement



Exhibit 4: E-Book Market Growth and Projection

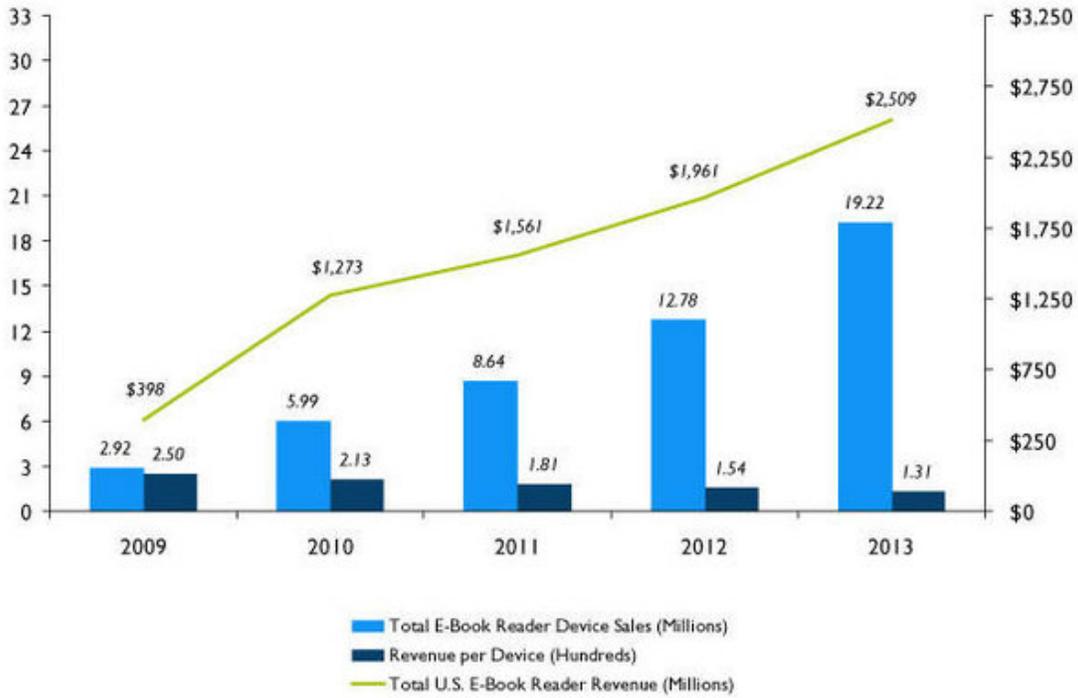


Exhibit 7: Kindle Price History

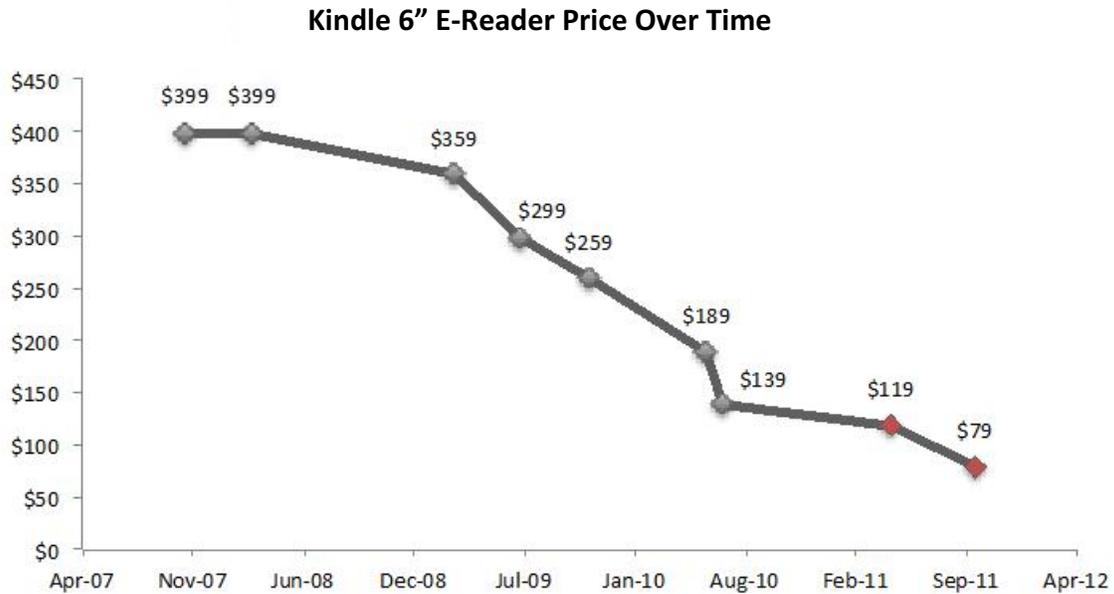


Exhibit 8: Amazon Kindle Cross-Platform Ecosystem

Buy Once, Read Everywhere

Read on your Kindle, PC, Mac, iPhone, iPad, BlackBerry or Android phone with our Free Reading Apps. Move seamlessly between them with Whispersync.

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Exhibit 9: Global Top Five Media Tablet Brands, Q4 2011 (Ranking by Global Unit Shipments)

Q4 '11 Rank	2011 Rank	Brand	Q4 '11 Shipments (in millions)	Q4 '11 Share (%)	Q3 '11 Shipments (in millions)	Q3 '11 Share (%)	Q3-Q4 Change (%)	2011 Shipments (in millions)	2011 Share (%)
1	1	Apple	15,430	57	11,123	64	39	40,493	62
2	3	Amazon	3,885	14	0	0	NA	3,885	6
3	2	Samsung	2,140	8	1,850	11	16	6,110	9
4	4	B&N	1,920	7	750	4	156	3,250	5
5	5	Asus	612	2	801	5	-24	2,063	3
		Others	3,122	12	2,917	17	7	9,389	14
		<i>Total</i>	<i>27,109</i>	<i>100</i>	<i>17,441</i>	<i>100</i>	<i>194</i>	<i>65,190</i>	<i>100</i>

Exhibit 10: Nook, Fire, and iPad Compared



Nook Tablet
By Barnes & Noble

- **Height:** 8.1 inches
- **Width:** 5 inches
- **Thickness:** 0.48 inches
- **Weight:** 0.88 pounds
- **Primary orientation:** Portrait
- **Color:** Gray
- **Speakers:** Mono
- **Operating system:** Android
- **Skin:** Nook Color
- **Launch OS version:** 2.3
- **Notable apps:** Hulu Plus, Netflix

MEMORY

- **RAM size:** 1 GB

BATTERY

- **Capacity:** 4000 mAh
- **Removable:** No
- **Quoted use time:** 9 hr

CONNECTIVITY

- **Wi-Fi:** Yes
- **Wi-Fi support:** 802.11n, 802.11g, 802.11b



Kindle Fire
By Amazon

- **Height:** 7.5 inches
- **Width:** 4.7 inches
- **Thickness:** 0.45 inches
- **Weight:** 0.91 pounds
- **Primary orientation:** Portrait
- **Color:** Black
- **Speakers:** Stereo
- **Operating system:** Android
- **Skin:** Kindle
- **Launch OS version:** 2.3.3

- **RAM size:** 512 MB

- **Capacity:** 4400 mAh
- **Removable:** No
- **Quoted use time:** 7.5 hr

- **Wi-Fi:** Yes
- **Wi-Fi support:** 802.11n, 802.11g, 802.11b



iPad 2 (Wi-Fi)
By Apple

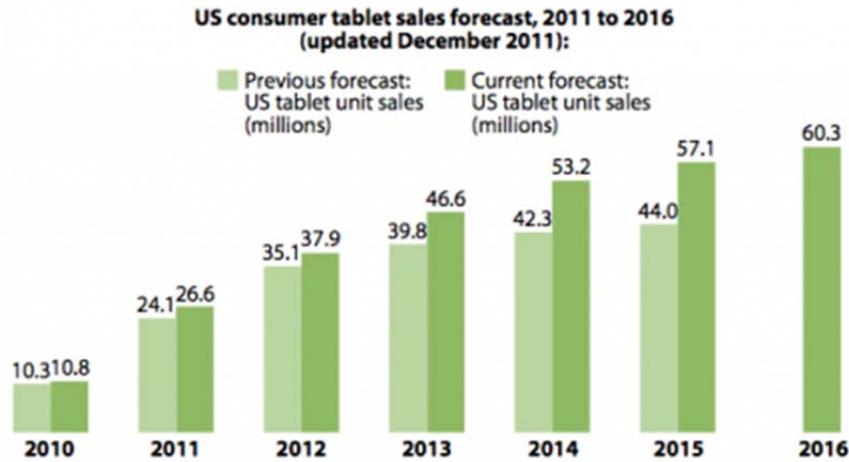
- **Height:** 9.5 inches
- **Width:** 7.31 inches
- **Thickness:** 0.34 inches
- **Weight:** 1.33 pounds
- **Primary orientation:** Portrait
- **Color:** Silver / White, Silver / Black
- **Speakers:** Mono
- **Operating system:** iOS
- **Launch OS version:** 4.3
- **Current OS version:** 5.1
- **Media streaming:** AirPlay

- **RAM size:** 512 MB
- **RAM type:** DDR2

- **Capacity:** 25 Wh
- **Removable:** No
- **Quoted use time:** 10 hr

- **Wi-Fi:** Yes
- **Wi-Fi support:** 802.11n, 802.11g, 802.11b, 802.11a

Exhibit 11: U.S. Tablet Sales and Forecast, 2011–2016



Source: Forrester Research Consumer PC And Tablet Forecast, 2011 To 2016 (US)
 Note: Updated forecast includes iPad, Barnes & Noble Nook Color and Nook Tablet, Kindle Fire, other Android tablets, BlackBerry PlayBook, and future Windows 8 and Windows on ARM tablets.

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Source: Forrester Research, Inc.