Apple Watch (A) – The Launch

"In the beginning was Apple. All things were made by it; and without it was not anything made that was made." If technophiles were to write their own Testament, these might be the opening lines. Apple's ability to redefine the appeal of whole categories of computing has attracted the unerring faith of millions of followers. Apple has popularised existing technologies four times: with the Macintosh computer in 1984, the iPod in 2001, the iPhone in 2007 and the iPad in 2010. Recently the faithful have prayed that Apple will pull it off again with its smartwatch. Many firms already make wrist-based devices that measure sleep patterns and exercise, but so far the category has remained a niche plaything for geeks and athletes.[1]

On September 9, 2014, Apple announced its entry into the wearable computing market with the introduction of the Apple Watch, marking its first new hardware product since the death of Steve Jobs, and since introducing the iPad four years prior. Along with the excitement of typical Apple fans, there was anticipation from other players in the smartwatch industry who wondered how Apple's entrance would help or hurt their own success. From competitors to component suppliers to application developers, many firms had a stake in Apple's pricing and promotion strategies for the Apple Watch.

Background: The Smartwatch Industry

A smartwatch gained much functionality and versatility from connection to a mobile phone which it used for wireless communication and interaction with a variety of applications or *apps*. Other functionality embedded in a watch fell under the category of *wearable technology*, including a variety of sensors, gyroscopes, and specialized communications. By 2014, the smartwatch industry had benefited from market acceptance of wrist-based fitness- and activity-

---

[1] *The Economist*, Wearable Technology, March 14, 2015.

This case was prepared by Megan Way, Associate Professor of Economics, and Lidija Polutnik, Professor of Economics, at Babson College. It was developed as a basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation. It is not intended to serve as an endorsement, source of primary data or illustration of effective or ineffective management.

Apple Watch (A) – The Launch
BAB344 - JULY 2017

tracking products, led by Fitbit and Jawbone. It had also benefited from expansion of functionality in traditional sports watches produced by watchmakers like Casio, and in location trackers produced by firms like Garmin. Smartwatches, however, embodied a broader approach focused on applications and the Internet of Things[2] (IoT). Startups such as Pebble led the category, which had become dominated by multinationals Samsung, LG, Sony, and now Apple, offering consumers a product resembling a traditional watch although larger and less elegant.

The Smartwatch Group, an independent research company based in Switzerland, predicted the top applications for smartwatches to be: (1) personal assistance and information, such as context-aware management of calendar and location-based searches; (2) medical and health uses, allowing biometric tracking to improve healthcare habits, detect dangerous irregularities in vital signs, and communicate seamlessly with medical professionals; and (3) wellness, the area Jawbone and Fitbit occupied with tracking of movements, sleep, and nutrition. Potential consumers of wearable technology reported their most likely uses to be health and activity monitoring, and also communications such as send/receive notifications and search. Other applications included personal safety, financial payments, *smart home* functions, and social networking.[3]

The practicality of using a smartwatch depended on other attributes. Screen size and resolution were important, although consumers might have held different expectations of the screen size needed to manipulate applications versus that tolerable in a fashion accessory. Battery life was a concern — consumers were not accustomed to charging a watch on a nightly or weekly basis, and as with all things electronic, battery life fell as functionality increased.

While smartwatch industry sales were relatively low by the middle of 2014 (about 700,000 smartwatches shipped worldwide[4]), the Smartwatch Group predicted 250% annual growth for several years. Smartwatch sales were expected to surpass traditional watch sales in 2018 and become a six billion dollar market by 2020.[5]

The Competitive Landscape for Apple Watch

Before Apple entered the smartwatch industry, Samsung held 42% market share with 2.15 million units sold by early 2015, according to the *Top Smartwatch Makers Worldwide* report by Market Share Reporter. Samsung used its first-mover advantage to lower its costs as a result of its learning economies in production as well as to build the smartwatch ecosystem. Competitors included: Pebble with the second largest market share at 16% and 800,000 units sold, Sony with 12% share and 610,000 units sold, Motorola with 11% share and 550,000 units sold, LG Electronics with 5% share and 270,000 units sold, and a variety of other producers with a total

---

[2] The "Internet of Things (IoT)" refers to the network of appliances, devices, or spaces with embedded communications technology.
[3] "Wearable Devices: The Internet of Things Becomes Personal," Morgan Stanley Blue Paper, November 2014.
[4] The word *smartwatch* in this case refers only to those products with a multiple-use platform and not to the highly focused fitness-tracking devices such as Fitbit, Misfit, and Jawbone.
[5] "Global Smartwatch Vendor Marketshare: Q1 2014," Strategy Analytics, May 15, 2014.

Apple Watch (A) – The Launch
BAB344 - JULY 2017

of 14% share and 720,000 units sold.[6] Among top producers, Pebble occupied a separate niche, whereas other brands pursued a different type of user based on phone compatibility.

Competition among smartwatch producers was inherently tied to competition among smartphone producers. The tie to a smartphone provided a competitive challenge for firms attempting to increase their share of the smartwatch market. The complementarity between smartwatches and phones increased as a competitive weapon in the broader mobile communications technology market. There were several important considerations.

- While smartwatches were an accessory to a phone, they were also a product unto themselves which could encourage smartphone brand choice and switching among smartphone brands.
- There was fluidity in the smartphone market. In 2015, the CEO of Samsung acknowledged that only about 20% of smartphone users were willing to switch between iOS and Android.[7] With 171 million smartphone units predicted to ship in 2015, however, this implied that approximately 34 million consumers of smartphones could be lured to switch from iPhone to Samsung or LG, or vice-versa.[8]
- This made the attributes and pricing of accessories such as smartwatches a key weapon in the mobile phone competitive battle.

Pebble

The hip, stylish, Kickstarter-funded Pebble watch reanimated the smartwatch industry, which had previously enjoyed mostly false starts when it launched in 2013. With a sleek design, minimalist approach to functionality, and long battery life relative to other smartwatches, Pebble was the early adopter's favorite. By the time the Apple Watch arrived, Pebble had launched its second-generation watch, the *Pebble Steel*. The Pebble Steel added "a steel and leather design, a new operating system and more applications over previous Pebble designs." It had a 1.26-inch ePaper LCD screen and a seven-day battery life, and it provided the user total control of playing music from a phone. Its agnostic approach to operating systems was its unique feature, and it was able to connect with any Apple or Android device through Bluetooth.[9] It was priced at $220.

Samsung

Samsung launched the fifth iteration of its smartwatch, the Samsung Gear Live, in September 2014. The Gear Live had a 1.63-inch super AMOLED 320 x 320 resolution display, as well as a heart-rate monitor. Through connectivity to an Android phone, the Gear Live had significant functionality and access to many apps. Some reviewers considered software the downside of these Samsung watches. They ran the Android Wear operating system, and their reviews indicated a rather bland look.[10]

---

[6] "Top Smartwatch Makers Worldwide, 2014, *Market Share Reporter*, Ed. Robert S. Lazich. 2016 ed. Farmington Hills, MI: Gale, 2016. *Business Insights: Essentials*, September 27, 2015.
[7] "Samsung and Apple battle over the smartphone floating voter," *The Guardian*, August 17, 2015. https://www.theguardian.com/technology/2015/aug/17/samsung-apple-smartphone-ios-android.
[8] "U.S. Smartphone 2015–2019 Forecast and Analysis," by Ramon T. Llamas, IDC, July 2015.
[9] http://www.theweek.co.uk/63482/best-smartwatches-of-2015-the-top-nine-on-sale-now.
[10] Ibid.

Announced at the same time as the Gear Live launch, the Samsung Gear S was the first smartwatch to free itself from a phone with its own 3G and Wi-Fi connectivity. Samsung packed specifications of a mid-range phone from previous years into its watch, which showed its heft with a two-inch face, and ran it on Tizen, Samsung's proprietary operating system. Its advantage was that it could be used independently from other devices, including a phone, although it required a phone for updates and for downloading apps.[11]

Motorola

The Moto 360 featured a round, 1.56-inch, 320 x 290 resolution display, and it used the Google Android Wear operating system. Its round face evoked a traditional watch, but through connectivity with an Android phone, a wearer could search, tweet, make a call, check text, and send e-mail. Google Voice for voice recognition and the Google Now intelligent personal assistant function were incorporated. It was water-resistant, but drawbacks included a not-well-developed heart-rate monitor and pedometer, and a short battery life.[12]

LG

The LG G Watch was LG's first version of a smartwatch, and like the Moto 360, it ran on the Android Wear operating system. Android Wear provided the functionality of Google Voice and Google Now, the intelligent personal assistant. The G Watch suffered, however, from some of the same problems as other Android-compatible and Android Wear devices, with reviewers noting its generic look. The G Watch came in two colors, black and gold, and it had a display of 1.65-inch IPS 280 × 280. It also had a relatively long two-day battery life, which it achieved by compromising functionality, such as a heart-rate monitor. The G Watch was priced at $300.[13]

Apple

The Apple Watch, introduced to the market in its *Sport* version at $349, was "the closest to having a good balance between technology and the arts."[14] Its design and features suggested to analysts that Apple understood the challenges of wearables.[15] Apple Watch came in three different models and allowed customization with six different bands. Tim Cook proclaimed Apple Watch would "redefine what people expect from its category" and that the wearable would be the "next chapter in Apple's story."[16] Apple Watch was designed to work with the iPhone 6. The iPhone 6 came in versions of 16 gigabytes (GB), 64 GB, and 128 GB, priced respectively at $199, $299, or $399 if sold with a wireless contract. (Please see **Exhibit 1** on the U.S. smartwatch industry.)

---

[11] http://techcrunch.com/2014/11/15/the-samsung-gear-s-is-a-smartphone-on-your-wrist/.
[12] http://www.theweek.co.uk/63482/best-smartwatches-of-2015-the-top-nine-on-sale-now.
[13] http://techcrunch.com/2014/07/21/fly-or-die-lg-g-watch/.
[14] Wearable Devices, "The 'Internet of Things' Becomes Personal," Morgan Stanley Blue Paper, November 19, 2014.
[15] Ibid.
[16] http://www.macworld.com/article/2604309/meet-apple-watch-the-new-apple-smartwatch-with-a-clever-new-navigation-scheme.html

This document is authorized for use only by mansour algoblan in Strategic Marketing Planning taught by YASSER MAHFOOZ, King Saud University from Feb 2021 to Jun 2021.

4

Apple Watch (A) – The Launch
BAB344 - JULY 2017

The Apple Watch Pricing Strategy

Demand for the Apple Watch

The Apple Watch team contemplated their U.S. launch strategy for early 2015, the first quarter of Apple Watch sales, and estimated the weekly demand function for the U.S. market. (See **Figure 1** below.)This function included prices of what the team determined to be the most significant competitors for the Apple Watch, in addition to other variables.

Figure 1

$$Q_{AW} = -150{,}000 - 2400\, P_{AW} + 1520 P_{GearS} + 1200\, P_{Pebble} - 1200\, P_{iPhone6} + 44\, A$$

- Q_{AW} is the quantity demanded of the Apple Watch per week.
- P_{AW} is the price of the Apple Watch (dollars per unit).
- P_{GearS} is the price of the Samsung Gear S watch (dollars per unit).
- P_{Pebble} is the price of the Pebble Steel (dollars per unit).
- $P_{iPhone6}$ is the price of the mid-range iPhone 6 smartphone (dollars per unit).
- A is the quarterly targeted advertising budget for the Apple Watch (in thousands of dollars per quarter).

As the team prepared for launch, they contemplated a scenario with the following variable values: P_{AW} =$349, P_{GearS} =$380, P_{Pebble} =$220, $P_{iPhone6}$ =$299, A=$15,500. Regression analysis results showed the coefficient of determination to be 0.7581 and the standard error of the estimate to be 30,000.

Cost Considerations

According to an Apple Watch cost analysis by the *Wall Street Journal* of May 1, 2015, variable hardware and manufacturing costs per unit were estimated at $83.70. Cost estimates did not include intellectual property, royalties and licensing fees, shipping, logistics, and other channel costs. One analyst estimated these figures could amount to at least as much as the hardware costs.[17] (Please see **Exhibit 2** for smartwatch cost structure.) A reasonable variable cost estimate was $178 per unit.

---

[17] http://www.ibtimes.co.uk/apple-watch-does-not-cost-84-manufacture-it-costs-significantly-more-1500728, May 11, 2015. David Gilbert for the *International Business Times*.

This document is authorized for use only by mansour algoblan in Strategic Marketing Planning taught by YASSER MAHFOOZ, King Saud University from Feb 2021 to Jun 2021.

5

Apple Watch (A) – The Launch
BAB344 - JULY 2017

Challenges to the Smartwatch Industry

Besides developing the technologies described above, a key hurdle was how to create a battery that would power functionality for more than eight hours. While some lower-functionality smartwatches such as the Pebble only had to be charged every five to seven days, most smartphone producers including Apple did not dare to claim more than a day of battery life. People who wore traditional watches were certain to find this a burden, and it was unknown whether consumer patience for charging phones, tablets, and computers would extend to charging a watch.

There was also the question of the phone. Most functionality of smartwatches was only available with a companion phone nearby. It was unclear whether consumers would be willing to purchase an expensive smartwatch if it was only perceived as a smartphone accessory.

Privacy issues were another key concern for consumers and regulators, similar to the issues with smartphones. With smartwatches, personal information would flow through the devices into the cloud, and consumers were getting nervous about firms accessing their most personal data. Advances in wearable technology including smartwatches provided an opportunity in healthcare, particularly for chronically ill patients. Some people monitored their own daily health status, for example diabetics testing their blood sugar. Integrating such information with electronic health records could increase efficiency and improve health outcomes. Integrating personal medical information with the healthcare system would require makers of smartwatches and other electronics to enter the highly regulated and costly world of medical devices. They would be required to adhere to medical privacy statutes such as the Health Insurance Portability and Accountability Act (HIPAA) and obtain Food and Drug Administration (FDA) approval for new uses of their devices. An article in *Wired* magazine criticized the smartwatch and wearable device industry's lack of attention to healthcare: "It's a shame because the people who could most benefit from this technology—the old, the chronically ill, the poor—are being ignored. Indeed, companies seem more interested in helping the affluent and tech-savvy sculpt their abs and run 5Ks than navigating the labyrinthine world of the FDA, HIPAA, and the other alphabet soup bureaucracies."[18]

Those who were old, chronically ill, and poor composed a market whose healthcare was typically covered in the United States by public insurance programs such as Medicare. If these populations improved their health by using wearable technology, society might enjoy positive spillovers of good healthcare, such as a greater number of productive society members who could work and care for their children, and decreased claims to taxpayer-funded insurance.

On the other hand, consumers might be interested in the value provided by platform versatility and diverse capabilities imbedded in smartwatches. Having a single device to remind consumers to take medication, leave early for an appointment due to traffic, track fitness activities, inform a doctor of heart arrhythmia, pay for groceries, voice-text friends and family, all without having to

---

[18] "Wearables are Totally Failing the People Who Need Them Most," by J.C. Hertz, *Wired*, November 6, 2014.

be dug out of a pocket or purse, could be a hardware breakthrough. Forecasts for smartwatch sales were excellent. Between 2013 and 2014, consumer interest in wrist-based wearable technology increased from 28% to 42%, driven by market acceptance of fitness-trackers.[19]

Would Apple be able to help the smartwatch category break into a phase of explosive growth? Some predicted that even Apple's competitors had much to gain:

> Would you rather have 50 percent of a hundred-million-dollar market, or 10 percent of a one billion dollar market? That statement should help you understand why many of the existing players in the smartwatch market will be happy to welcome Apple into the fold. Today's announcement of the Apple Watch will legitimize public perceptions around smartwatches and wearable technologies; it will reduce the costs and increase the availability of the components involved in smartwatch manufacturing, bringing down the bill of materials and increasing margins; and it offers more retail opportunities for the countless consumers who will be looking outside of Cupertino for their technology, be it for personal preference, platform choice, or pricing considerations.[20]

---

[19] "Wearables Drive Innovation by Addressing Fundamental Human Needs," Forrester Research, October 21, 2014.
[20] "How the Apple Watch Legitimizes and Enhances the Entire Smartwatch Scene," *Forbes Magazine*, September 9, 2014.

Apple Watch (A) – The Launch
BAB344 - JULY 2017

Exhibit 1

The U.S. Smartwatch Industry in Late 2014

	Moto 360	Samsung Gear Live	Samsung Gear S	LG G Watch	Pebble Steel	Apple Watch 38mm
Display Size	1.56"	1.63"	2"	1.65"	1.26"	1.33"
Display Resolution	320 x 290	320 x 320	480 x 360	280 x 280	168 x 144	272 x 340
Thickness	11.5mm	13.7mm	12.5mm	9.7mm	10.5mm	Unknown
Processor	1GHz single core	1.2 GHz quad core	1 GHz dual core	1.2GHz quad core	120MHz single core	Unknown (New S1 chip)
Storage	4G	4G	4G	4G	128Kb (8 apps)	Unknown
Battery Life	~ 1 day	~ 1 day	~ 2 days	~ 2 days	~ 6 days	~ 1 day
OS	Android Wear	Android Wear	Tizen	Android Wear	Pebble	iOS
Phone Compat.	Android	Android	Samsung Galaxy	Android	Android/iPhone	iPhone
Touchscreen	Yes	Yes	Yes	Yes	No	Yes
Always-on display	Yes	Yes	Yes	Yes	Yes	No
Standalone Wireless	No	No	Yes	No	No	Yes
Price (basic)	$250	$200	$380	$300	$220	$349

Source: Information compiled by authors from the following sources. Reuters side-by-side comparison, September 10, 2014. Gizmag 2014 Smartwatch Comparison Guide, November 1, 2014 side-by-side comparison. Websites of Samsung, Apple, and Pebble.

Apple Watch (A) – The Launch
BAB344 - JULY 2017

Exhibit 2

Smartwatch Cost Structure

Component	Description	Manufacturer	Cost
Display/Touchscreen			20.50
Touchscreen	1.34" diagonal, plastic OLED, 272x340 pixels, with force touch and ion-X cover glass	TPK	
Touchscreen Controller	ARM Cortex-M3 (microprocessor)	Analog Devices	
Computing/Intelligence			
Apps Processor	Apps Processor	Apple	$10.20
Memory			$7.20
NAND	NAND – Flash 8GB, MLC NAND	Toshiba	
DRAM	DRAM – SDRAM 512MB LPDDR3	Micron Technology	
Power Management			$5.50
BT/WLAN	BT/WLAN (Bluetooth and Wireless LAN) IEEE802.11 a/b/g/n, Bluetooth 4.0	Broadcom	$3.00
User Interface			$5.50
Audio Codec	Audio Codec (for digitizing audio streams)		
Audio Power Amplifier	Amplifies the sound	Maxim	
NFC Controller	Near Field Communications Controller (for payments, other transactions)	NXP	
NFC Booster	Near Field Communications booster	ams AG	
Sensors			$3.00
Accelerometer/Gyroscope	Accelerometer/Gyroscope – 6 axis	ST Micro	
Optical Pulse Sensor	Photo sensor for heart rate		
Ambient Light Sensor	Light sensor to adjust display brightness	ams AG	
Battery Pack	Li-Polymer, 3.8V, 205mAh, 0.78Wh		$0.80
Other Mechanical	Enclosure, wristbands, switches, printed circuit boards, misc.		$16.50
Other Box Contents	Inductive charger and adapter, extra wristband, carrying case, packaging		$9.00
Assembly Labor			$2.50
TOTAL			$83.70

Adapted from information published through various sources, including the Wall Street Journal (May 1, 2015) and Business Wire (April 30, 2015) based on IHS Apple Watch Sport cost chart.