



Marketing Strategy: Based on First Principles and Data Analytics

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Data Analytics Case 1



Segmenting the Smartwatch Market¹

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Background

Intel has dominated the computer chip industry.

Beginning with the iconic advertising campaign “Intel Inside,” the company has created a large market for powerful processors. This has allowed Intel to charge high prices to computer manufacturers (e.g., Dell, HP) who needed the best processor chips for personal computers and industrial mainframe servers to meet buyers’ expectations.

Along with Microsoft, Intel has also captured a large percentage of profits in the modern computer revolution. But Intel, enjoying its success in PCs and mainframes, missed the rise of smartphones, where companies like Qualcomm and Samsung placed their mobile communication chips.

The latest astronomical rise in computer chips has come from graphic processing units (GPUs), which were originally designed by companies such as Nvidia for high powered visual requirements in applications like video games. Now GPUs are being put to use for deep-learning, artificial intelligence and computer vision, machine learning, and self-driving cars. In 2016, with AI and Tesla placing multiple GPUs in every car manufactured, Nvidia’s stock price has more than tripled. During the same period, Intel’s stock price has increased by only 8%.

To look for growth, Intel has set its sights on the forthcoming “internet of things” market in which previously ordinary items (e.g., refrigerators, factory machinery) will be full of sensors and connected to the internet. One such category is the smartwatch, an advancement that replaces the traditional wristwatch with capabilities far beyond functional timekeeping. While the origin of computer interfacing wristwatches can be traced to the Pulsar brand in the 1970s, retail markets have been negligible due to data, storage, battery, and connectivity limitations. It was not until 2013 that the TrueSmart watch by startup Omate reached the full operational capability of the present day smartwatch.

Smartwatch sales are rapidly increasing. More than 30 million were sold in 2015, and 2017 sales projections surpass 66 million units worldwide. Samsung and Apple entered the market in 2014 and 2015 respectively, largely targeting their smartphone customers. In addition, Google,

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Microsoft, Sony, and Toshiba have joined at least 30 other companies currently offering smartwatches.

Opportunities for the modern smartwatch include products that act as companions or standalone alternatives to smartphones, fitness tracking and enhancement monitors, and diagnostic and medical health reporting devices.

In 2014, as part of an early exploration of connected devices loaded with sensors, Intel acquired Basis Science, a smartwatch manufacturer employing high quality heart rate sensors and algorithms to track activity and monitor sleep patterns. The Basis Peak was released in 2015, but the waterproof watch that emphasized quality sensors and algorithms failed to catch on with the wider public. In 2016, reports that the Basis Peak battery caused burns from overheating prompted Intel to recall the watch and issue customer refunds.

Imagine Intel has fixed the battery issue with the Basis Peak and is now considering another run at the smartwatch space. This time, they plan to partner with another company to launch a new product. Potential partners include Aetna, Amazon, and Google.

Google would offer integration with Android Wear for full-function smartphone communication synthesis and access to apps. Health insurer Aetna could be a valuable partner by promoting the watches to businesses concerned with employee well-being. Periodic reminders (e.g., breathe, stand up, walk) would encourage healthier living and save money on company sponsored healthcare premiums. Amazon is an alternative to Google, with access to the “Alexa” artificial intelligence voice interface. A partnership with Amazon could provide a voice-based interface that might pair well with Bluetooth earbuds. The firm also has an obvious advantage in promotion and distribution, as it can utilize its own retail platform.

As Intel executives ponder their next move, it becomes clear they need a systematic approach to revisit the current state of the smartwatch industry, their customers, and their competitors, given the changes in the last five years.

Problem Statement

Intel’s problem appears to fit the first fundamental marketing problem all firms face while formulating marketing strategy, i.e. multiple factors are working together in multifaceted ways to make all smartwatches differ in the market.

In order to decide who to partner with, Intel must carefully select the best customer segment to target and decide what features to include and omit to optimize the watch for the segment. The partner they choose should depend on what segment of smartwatch customers they decide to target and what unique benefits they aim to provide. Thus, Intel needs to answer the following questions:



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- How can the company effectively segment the market for smartwatches based on differing consumer needs?
- From what segment(s) of the market should Intel draw customers? How can Intel position itself or work with partners more strongly in these segments?

To help inform the decision, Intel decides to develop a customer survey to perform a segmentation analysis.

Data

Assume a data collection takes place in collaboration with the University of Oregon's Lundquist College of Business. A survey is built on Qualtrics and subsequently sent to college alumni who graduated after 1996. As an incentive for participation, Intel promises to donate \$2 to the Lundquist College of Business' scholarship fund for every completed survey.

A total of about 1,000 alumni complete the survey, a response rate of 2%. The survey key is provided in **Table 1**. The data are provided in the data file "Smartwatch_survey.xls."

Case Exercises and Questions

- 1) Determine the number of distinct segments present in the market as represented in the current respondent sample.
- 2) After determining the number of segments, describe each using the segmentation and descriptor variables. Based on the characteristics, create a name for each segment that captures the essence of what makes it unique.
- 3) Rate the attractiveness of each smartwatch segment on a scale of 1-7. Explain the factors that went into your rating.
- 4) For each variable used in the segmentation, rate the strength of competitors' offerings, including the Apple Watch, Fitbit Charge 2, and Samsung Gear S3. Identify the segment for which each of these brands is best positioned.
- 5) Rate Intel's previous watch, the Basis Peak, and a watch developed with Amazon, Aetna, and Google on each of the segmentation variables. Identify the segment(s) you believe is Intel's best target.



Table 1. Survey

- 1) Do you own a smartphone? (1=Yes, 0=No. Fifteen respondents answered “No” and were dropped from the remainder of the survey.)
- 2) Rate the importance of the following attributes and characteristics. Indicate how important each characteristic is to you (or would be to you) in a product on a 1-7 scale from “very unimportant” to “very important”:
 - a. Innovation: The ability to benefit from the latest and greatest.
 - b. Constant communication: The ability to receive subtle notifications at all times about messages and emails from family, friends, and work.
 - c. Creative communication: The ability to send and receive creative and fun communications such as pictures, emoji, and stickers.
 - d. Timely information: The ability to receive up-to-the-minute smart (based on context) traffic updates, route updates on directions, weather updates, calendar reminders, or business/sports/entertainment updates.
 - e. Saving money transaction: The ability to receive smart discounts, such as mobile coupons or mobile payment rewards points based on location (e.g., walking into a store).
 - f. Saving money life: The ability to earn savings on health, life, and car insurance based on living a healthy and safe lifestyle.
 - g. Task management: The ability to automate tasks or perform them instantly, such as placing an online order as soon as something is running low (e.g., toilet paper refill needed) or immediately add something to a to-do list or calendar with voice requests or touch of a button.
 - h. Device sturdiness: The ability not to worry about losing or damaging the device or having to recharge its battery.
 - i. Photos: The ability to take a picture when it would be annoying or impossible to have a phone open or with you (e.g., stopping while on a run).
 - j. Well-being: The ability to receive subtle reminders and smart goals to sleep regularly, take enough steps each day, change position (not sit too much), and breathe deeply.
 - k. Athlete: The ability to receive challenging fitness and athletic goals, smart coaching to improve performance (e.g., build to a faster 10-mile run), and multi-sport performance tracking (biking, running, swimming), as well as route mapping and guidance.
 - l. Style: The ability to wear stylish, fashion forward accessories that look great with many outfits.
- 3) Price: Imagine there is a new watch that leverages advances in several new technologies to offer the features you care about most. How much would you likely pay?
- 4) What type of smartphone do you currently own? (1=iPhone, 0= all else, such as an Android phone (e.g., Samsung, hTC, Motorola, LG, Google Pixel) or other (e.g., Blackberry, Nokia Windows).
- 5) Does your company buy you technology devices? (1=Yes, 0=No.)



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- 6) Which of the following best describes your work (pick one)?
 - a. 1=Health services (outpatient, hospital, or emergency care).
 - b. 2=Financial services (e.g., banking, insurance, accounting).
 - c. 3=Sales.
 - d. 4=Advertising /public relations.
 - e. 5=Education.
 - f. 6=Construction/transportation/manufacturing/logistics.
 - g. 7=Engineering.
 - h. 8=Technology.
 - i. 9=Retailing/services/restaurant.
 - j. 10=Small-medium business/self-employed.
 - k. 11=Other/family caretaker.
- 7) Do you check/watch/read/listen the following frequently? (1=Yes, 0=No.)
 - a. Facebook/Instagram.
 - b. Twitter.
 - c. Snapchat.
 - d. YouTube/Netflix/Hulu.
 - e. Radio/podcasts.
 - f. TV.
 - g. Newspapers or magazines.
- 8) Do you have an Amazon Prime account? (1=Yes, 0=No.)
- 9) How old are you?
- 10) What is your gender? (1=Female, 0=Male.)
- 11) What best describes your highest level of education? (1=Undergraduate degree, 2=Master's degree or higher, such as an M.D. or Ph.D.)
- 12) What best describes your annual household income? (1=Below \$40K, 2=\$40-\$70K, 3=\$71-100K, 4=\$101K-\$175K, 5=Greater than \$175K.)