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CHOOSING AN ADVERTISING RESEARCH STRATEGY FOR   
INTUIT INC.[[1]](#footnote-1)

Ken Mark wrote this case under the supervision of Professor Dante Pirouz solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

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“Should Intuit Inc. (Intuit) invest in neuromarketing research to refine a handful of key advertisements (ads) or build up a bank of web-ready ads?” wondered Jeffrey Thompson, a senior consultant at the marketing consultancy firm Del Mar Partners. Intuit was approaching its crucial tax-season window in which it sold 80 per cent of its total annual units in TurboTax, the tax preparation software.

Applying neuroscience to marketing—neuromarketing—was a relatively new phenomenon. In fact, Intuit had relied on this practice in 2012, achieving a 10 per cent boost in unit sales over the previous year. Since then, Intuit had realigned its efforts on in-house consumer research, holding focus groups to tweak its digital advertising.[[2]](#footnote-2)

TurboTax was the clear market leader, assisting with 30.1 million returns[[3]](#footnote-3) annually versus just seven million each for the tax software programs of rival firms H&R Block and TaxAct. While Intuit’s TurboTax had the highest brand recognition of any tax software package, Intuit was still trying to recover from a January 2015 controversy that had produced a large number of customer complaints. The confusion was a result of users having to upgrade from TurboTax Deluxe—the mid-range package—if they wanted to electronically file a few common tax forms. Even though the price difference between the two programs was relatively small—the Premier or Home & Business versions cost $80, while Deluxe cost $50—the negative feedback prompted the firm to offer a $25 rebate to customers.[[4]](#footnote-4)

TurboTax was looking to continue to protect and extend its lead in the marketplace and was considering a focused neuromarketing approach or a volume-based, live testing plan.[[5]](#footnote-5)

**Intuit Inc.**

With top products such as Quickbooks (accounting software) and TurboTax, Intuit developed software and service solutions for consumers, small businesses, and accounting professionals. The company focused on helping its customers in four ways: helping them save and make money; increasing productivity by making menial tasks simpler; making it easier to comply with regulations; and sharing best practices with the users of its software programs. Intuit generated revenues of US$4.2 billion[[6]](#footnote-6) in 2015 and employed 7,700 people in the United States, Canada, India, the United Kingdom, Singapore, Australia, and other locations around the world.[[7]](#footnote-7) Intuit divided its business into three key segments: Small Business, Consumer Tax, and Professional Tax. Compared to the two other segments, Consumer Tax accounted for a greater percentage of revenues over time:

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Fiscal 2013** | **Fiscal 2014** | **Fiscal 2015** |
| Small Business | 50% | 51% | 50% |
| Consumer Tax | 40% | 39% | 43% |
| Professional Tax | 10% | 10% | 7% |

**TurboTax**

Designed to be easy enough for individual filers to use and sophisticated enough for complex tax returns, TurboTax was a desktop and online software program that offered different tiers of features, depending on need:

* TurboTax Free: for the simplest returns; free
* TurboTax Standard: for individuals, students, and families; $19.99 per return
* TurboTax Premier: for filers who owned investments or rental property; $34.99 per return
* TurboxTax Home & Business: for consultants, contractors, and other small business owners; $49.99 per return

Included in the price of its software packages, Intuit offered live tax advice from U.S.-based tax professionals. It also managed a TurboTax Answer Exchange online forum for its customers, and users were able to file their taxes via Intuit’s electronic filing centre. The majority of TurboTax unit sales took place between November and April each year, during tax season. The changing nature of technology was having an impact on the way Intuit positioned its product. While it had started as a desktop product, TurboTax was becoming more popular as an online product.

To promote TurboTax, Intuit had started with direct mail marketing in the 1990s, and then moved on to Internet marketing, search engine optimization, and buying keywords from the major search engines; advertising on banner ads in online stores; and direct-response mail and email campaigns. It also relied on traditional advertising, buying ad time on radio and television. Intuit had an internal direct sales force that called on customers, such as accounting firms, to educate them on the benefits of its products.

Intuit spent about 19 per cent of total revenues, or $798 million in 2015, on research and development to update the technology platforms for TurboTax and for its other software products. In addition to internal development, Intuit acquired and licensed products and technologies from third parties as well.[[8]](#footnote-8)

TurboTax competed with a variety of tax-filing services and providers. These included H&R Block, which provided tax preparation services from physical offices and had an online software offering called H&R Block At Home, and other online tax service providers, such as TaxACT by Blucora, SimpleTax, StudioTax, and U-File. The net effect of other online competitors exerted downward pressure on TurboTax’s price. In addition to these competitors, several publicly funded government entities offered electronic tax preparation and filing services at no charge to eligible taxpayers. Intuit was part of the Free File Alliance, a consortium of private-sector firms that agreed to provide federal tax preparation and filing series for free to eligible federal taxpayers.

Despite a challenging competitive environment, Intuit continued to achieve growth in its unit sales. On April 21, 2015, Intuit reported the results for TurboTax sales (see Exhibit 1), showing a decline in desktop units sold and a large increase in TurboTax Online units:[[9]](#footnote-9)

Intuit’s Consumer Group was responsible for the marketing campaigns that drove TurboTax sales. The focus of the Consumer Group’s efforts was to enhance sales by improving customer experience and satisfaction with the product. A key metric, TurboTax’s Net Promoter Score, was tracked in order to gauge the quality of customers’ relationships with the product. The Net Promoter Score was calculated based on customers’ response to the question, “How likely is it that you would recommend our product to a friend or colleague?” The scoring was based on a scale from 0 to 10, with 10 being the most positive score. The Net Promoter Score was then calculated by subtracting the percentage of customers who were identified as “Detractors” (those who responded with a value between 0 and 6) from the percentage of customers who were identified as “Promoters” (those who responded with a value of 9 or 10).

The Consumer Group provided a creative brief to its advertising agency, and the agency developed a series of creative concepts for the Consumer Group’s consideration. The importance of the digital ads in driving sales could not be underestimated since each ad was designed to generate an immediate response: click on the ad, proceed to Intuit’s landing page, and purchase the product. Viewed from that perspective, a poorly executed ad or landing page could cost the company millions in lost sales.

In 2010, Intuit utilized biometrics research to generate a 10 per cent increase in registration on its TurboTax.com registration page. The company hired Innerscope Research to conduct consumer testing of its TurboTax home page against the home pages of its competitors. Innerscope’s team relied on its own Biometric Monitoring System and eye-tracking equipment to isolate the online content that resonated emotionally with testers. The results from the research were used to direct website redesigns during the peak tax season in 2010. Intuit noted that the changes to TurboTax.com’s home page were the most significant in the past five years. “Biometrics gets at things we can’t get with traditional ad testing,” remarked Maria Scott, senior manager of Customer and Market Insights at Intuit.[[10]](#footnote-10)

Relying on biometrics was part of marketers’ push to access advertising effectiveness techniques beyond the traditional focus group and survey programs that had been used for decades.

**Traditional Advertising Testing**

Consumer packaged goods marketers relied on advertising-effectiveness tests to estimate the impact of their ads on sales. In developing the concepts for the advertising brief, the marketers would hire an agency to conduct focus groups, which consisted of interviews with four to five people in a room, led by a moderator, to test the potential effectiveness of concepts and the perceived attitudes towards the product in question.

After the results were analyzed, a creative brief was drafted and provided to the advertising agency, which then went on to develop creative concepts, storyboards, and finally, the ad itself. Then, a testing agency was hired to test the ad in a live-audience setting. This process included sending out requests for participants to watch an hour-long pilot program for a new television series. About 200 people were recruited by a call centre and screened based on the product’s target demographic, using criteria such as age, employment status, job type, and purchasing habits.

By indicating that the objective of the test was the evaluation of the television pilot, the agency was able to focus the audience’s attention on the television program and not necessarily on the ads that were shown during the commercial breaks between segments. A rotating series of about five commercials, one of which was the new ad, were shown to the audience.

Prior to the start of the screening, from a list, participants were asked to select a group of products to be included as a door prize. This group included, among other items, the five products in the commercials being shown. At the end of the screening, participants were asked to select from the same list a group of products for a second “exit prize.” The results of the first and second selection processes resulted in a metric called the “Sampling Potential Measure,” which indicated the convincingness of the creative idea for the product in question, as delivered by the ad.

Participants also filled out a survey specifically about the commercials they had watched. They were asked two questions: “Did you like the commercial and why?” and “Did you not like the commercial and why?” The participants were encouraged to express themselves, and their comments were individually coded into the following two categories and their subsets:

* Positive responses: “Believable” and “Interesting”
* Negative responses: “Not Believable” and “Uninteresting”

The testing agency employed “coders” who would read the responses and code each comment within the two categories. These ratios would emerge from the data:

* Number of “Positive” versus number of “Negative” comments
* Number of “Believable” versus number of “Not Believable” comments
* Number of “Interesting” versus number of “Not Interesting” comments

These three scores for the commercial in question were compared to a database of similar ads across all categories, and an overall score was assigned to the commercial. The agency tracked historical ads and the sales results that had followed, thus providing some indication as to the effectiveness of the ad.

Finally, three days after the participants had viewed the ads, a follow-up telephone survey was conducted to see whether participants remembered watching any of the ads for the products in question. From this survey, a “Recall” score was created.

**Neuromarketing**

Neuromarketing represented a relatively new field of marketing research, which studied the ways consumers respond to marketing stimuli. Instead of relying on self-reported surveys, neuromarketing, with its use of medical devices, tracked people’s sensorimotor, cognitive, and affective responses to ads. With the objective of getting at the “hidden elements of the decision process,”[[11]](#footnote-11) the objective of neuromarketing was to do a more precise job of measuring the mind’s biological response to the ads. The measurements focused on five areas of the brain that were stimulated during the tests:

* Nucleus accumbens, which created the expectation of pleasure
* Prefrontal cortex, which controlled higher-level thinking
* Hippocampus, which was linked to memory
* Insula, which anticipated and avoided painful stimuli
* Medial prefrontal cortex, which registered disappointment when a hoped-for reward did not materialize[[12]](#footnote-12)

Some anecdotal evidence illustrated the potential importance of one of the areas as it related to decision-making:

In the early 1950s, two scientists at McGill University inadvertently discovered an area of the rodent brain dubbed “the pleasure center,” located deep in the nucleus accumbens. When a group of lab rats had the opportunity to stimulate their own pleasure centers via a lever-activated electrical current, they pressed the lever over and over again, hundreds of times per hour, forgoing food or sleep, until many of them dropped dead from exhaustion. Further research found pleasure centers exist in human brains, too.[[13]](#footnote-13)

While techniques such as biometrics (eye tracking), heart rate tracking, and skin conductance tests were generally included alongside neuromarketing, the field made use of two key tests: functional magnetic resonance imaging (fMRI) and electroencephalography (EEG)

fMRI

The fMRI uses a giant magnet, often 3 Teslas strong, to track the blood flow throughout the brain as test subjects respond to visual, audio, or even taste cues. The technology has its own logistical limitations. Running an fMRI scanner costs researchers up to $1,000 per hour, and studies often use 20–30 subjects, Karmarkar says. And while EEG lets subjects move around during testing, fMRI requires them to lie very still inside a machine that can be intimidating.[[14]](#footnote-14)

A number of fMRI studies were conducted that explicitly investigated particular products and advertising, with often quite interesting and informative results. Unfortunately, fMRI scanners are bulky, very expensive, and not remotely portable. In addition, the participant has to lie supine in a narrow tube, watching images on a screen while trying to ignore the God-awful banging and clanking noise the scanner makes. To really commercialize neuromarketing, something much more portable, user-friendly, and above all cheaper was needed. It was recently found in a much older brain-recording technology: electroencephalography, or EEG.[[15]](#footnote-15)

Brain Waves—EEG

Using EEG technology on a group of willing subjects, the firm determined that consumers respond strongly to the fact that eating Cheetos turns their fingers orange with residual cheese dust. In her background note, Karmarkar cites an article in the August 2011 issue of Fast Company, which describes how the EEG patterns indicated “a sense of giddy subversion that consumers enjoy over the messiness of the product.”[[16]](#footnote-16)

Modern research-grade EEG systems can use up to 256 separate electrodes, and fixing them to a subject’s head using conductive gel (in order to get the best possible connection) is a messy business that can take several hours. However, technical advances in the past 10 years have changed the game; in 2007 a company called NeuroSky released the first consumer EEG device that used dry-sensor technology, removing the need to smear conductive gel in your participant’s hair. Cheap and easy wireless technology, the high power densities of lithium-ion batteries, and advances in computer technology have driven the cost ever downward and the user-friendliness upward.[[17]](#footnote-17)

One option was to screen 20 to 30 participants for the neuromarketing research. Five digital ads would be selected and run throughout the tests. Neuromarketing research could be a way to test and collect data on actual neurological responses to ads. This new process would mitigate one key issue that marketers had with self-reported surveys and focus-group discussions: participants often did not—or could not—reveal what they really felt about an ad.

Naturally, there were skeptics commenting on the benefits of neuromarketing in general:

The standard logical inference in experiments is based on the manipulation of a carefully selected factor across two conditions, one experimental and one a control condition. A difference in the data between the two conditions suggests that the manipulated factor caused the difference. For instance, in one experimental condition, participants might be asked to pay close attention to one aspect of a stimulus (the direction a dot moves in or the precise orientation of a line, for example), and in another (control) condition be given no particular instructions about the stimulus. If a reliable difference between those two conditions is seen in the EEG signal, it can be inferred that the increased attention in the first condition (relative to the second) caused that difference. This [response] hopefully tells us something useful about how the brain works, namely that attention causes some particular change in the EEG signal.

Reverse inference goes the other way, from the brain data to a cognitive or emotional process. An experimenter might observe a change in the EEG signal and infer that this means the participant is paying more attention. Unfortunately, logically this doesn’t work. Nothing has been systematically manipulated or tested, so this is not a safe assumption. The signal change might be because a participant just thought about his boyfriend, or experienced an itch on her foot, or felt hungry, or any number of other possible things. There is no unique brain signature of any particular cognitive or emotional state that can be seen with current technology. Labelling a set of brain data as a signal of attention or anxiety based on previous experimental findings is similar to saying “tomatoes are red, this apple is red, therefore this apple is a tomato.” It’s plainly nonsense.[[18]](#footnote-18)

An alternative was to consider “A/B testing” of ads, in real time, over the course of a few weeks.

**A/B Testing**

Also known as “split testing,” A/B testing compared two versions of an ad, assessing which version generated better results. The technique gained popularity in the 2000s because marketers were able to take advantage of the large and consistent volume of web traffic to test and optimize their ads. Instead of waiting weeks for television ads to be tested and sales results to be gathered from physical stores, web results could be collected immediately.

In a typical A/B test, half the web traffic was served one version of the ad and landing page, while the other half was served a different combination of ad and landing page. The click-through rates for these ads and conversion rates for the landing page were measured, and the combination that generated the higher click-through rate was retained. The less popular ad and landing page was dropped from the rotation.

By testing a series of ad and landing-page designs and combinations, the agency or firm could narrow down the group to one or two of the best combinations. As well, there was potential to continue to improve upon the chosen ad and landing-page combination by tweaking various elements and then submitting test and control combinations to more live A/B testing. This continuous cycle of testing and tweaking was expected to result in the best sales over the period.

A key advantage of the A/B testing approach was that it eliminated the need to interpret the research results beyond looking at the click-through and conversion rates for the ad combinations. The A/B testing approach took the guesswork out of choosing an effective ad and eliminated the need to have an opinion on whether one creative execution looked better—and thus could possibly work better—than another. There were concerns about A/B testing, as Brian Christian, wrote in *Wired* magazine:[[19]](#footnote-19)

One consequence of this data-driven revolution is that the whole attitude toward writing software, or even imagining it, becomes subtly constrained. A number of developers told me that A/B has probably reduced the number of big, dramatic changes to their products. They now think of wholesale revisions as simply too risky—instead, they want to break every idea up into smaller pieces, with each piece tested and then gradually, tentatively phased into the traffic.

But this approach, and the mindset that comes with it, has its own dangers. Companies may protect themselves against major gaffes but risk a kind of plodding incrementalism. They may find themselves chasing “local maxima”—places where the A/B tests might create the best possible outcome within narrow constraints—instead of pursuing real breakthroughs.

Google’s Scott Huffman cites this as one of the greatest dangers of a testing-oriented mentality: “One thing we spend a lot of time talking about is how we can guard against incrementalism when bigger changes are needed. It’s tough, because these testing tools can really motivate the engineering team, but they also can wind up giving them huge incentives to try only small changes. We do want those little improvements, but we also want the jumps outside the box.” Paraphrasing a famous Henry Ford maxim—“If I’d asked my customers what they wanted, they’d have said a faster horse”—Huffman adds, “If you rely too much on the data, you never branch out. You just keep making better buggy whips.”

It was estimated that the cost of having a team direct web traffic for the A/B tests, collect data, and tweak and redesign ads over the sales period would cost the same as neuromarketing research.

**Opportunities and Challenges**

Intuit’s total revenues had fallen in 2015, and, on a year over year basis, operating income fell 43.2 per cent in 2015.[[20]](#footnote-20) The one bright star in Intuit’s portfolio was its Consumer Tax segment, which contributed the majority of Intuit’s operating income that year.

Given that TurboTax was the most important product in the most important segment at Intuit, it was important for its Intuit’s Consumer Group to determine which market research techniques they should rely on for the 2016 season.

**Exhibit 1: Intuit—TurboTax Unit Sales 2014 and 2015**

**Season**

**Through**

**Season**

**Through**

**16-Apr-14**

**16-Apr-15**

TurboTax Desktop

5,691,000

5,372,000

−5.6%

TurboTax Online

20,980,000

23,792,000

13.4%

**Sub-total TurboTax Units**

**26,671,000**

**29,164,000**

9.3%

TurboTax Free File Alliance

1,154,000

1,025,000

−11.2%

**Total TurboTax Units**

8.5%

**27,825,000**

**30,189,000**

**Per cent Change**

**Year-over-year**

Source: Created by the case authors using data from Intuit Inc., “Intuit (INTU) Reports 6% Drop in TurboTax Desktop Sales for Tax Season 2015,” StreetInsider.com, accessed, January 16, 2016, www.streetinsider.com/Corporate+News/Intuit+(INTU)+Reports+6%25+Drop+in+TurboTax+Desktop+Sales+for+Tax+Season+2015/10476922.html.

1. This case has been written on the basis of published sources only. Consequently, the interpretation and perspectives presented in this case are not necessarily those of Intuit Inc. or any of its employees. [↑](#footnote-ref-1)
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