



In the modest economic recovery that followed the Great Recession of 2008/2009 a few innovative entrepreneurs bet that consumers were ready to buy again; but that purchase habits were amenable to change. More Americans were leasing cars and renting their homes rather than buying. The success of music and video services such as Netflix, Spotify, and Pandora proved that consumers would commit to subscriptions online. This led to the development of innovative new models from companies such as Birchbox, Ipsy and Dollar Shave Club, and Amazon, offering subscriptions on products.

Today, subscription-based businesses have crept into virtually every category. Websites exist to keep track of all of the subscription boxes available. One, My Subscription Addiction, tracks more than 700 subscription boxes.



# Subscription Model Trend & Growth

# Two subscription models

Two prominent subscription models are emerging, best exemplified by Dollar Shave Club and Birchbox. Dollar Shave Club represents a replenishment model, while Birchbox is the most prominent example of a discovery subscription model.

In the replenishment model, consumers commit (usually without penalty if they decide to cancel) to ongoing delivery of the same product or products. This works best for products with relatively consistent consumption rates because customers can be more comfortable ‘setting it and forgetting it’. Often, consumers are offered a strong price/value proposition in order to offset a natural reluctance to commit. For example, Dollar Shave Club offers plans as low as \$1 per month, and Amazon, through its Subscribe and Save program, gives customers a discount to get consumers to sign up for recurring deliveries.

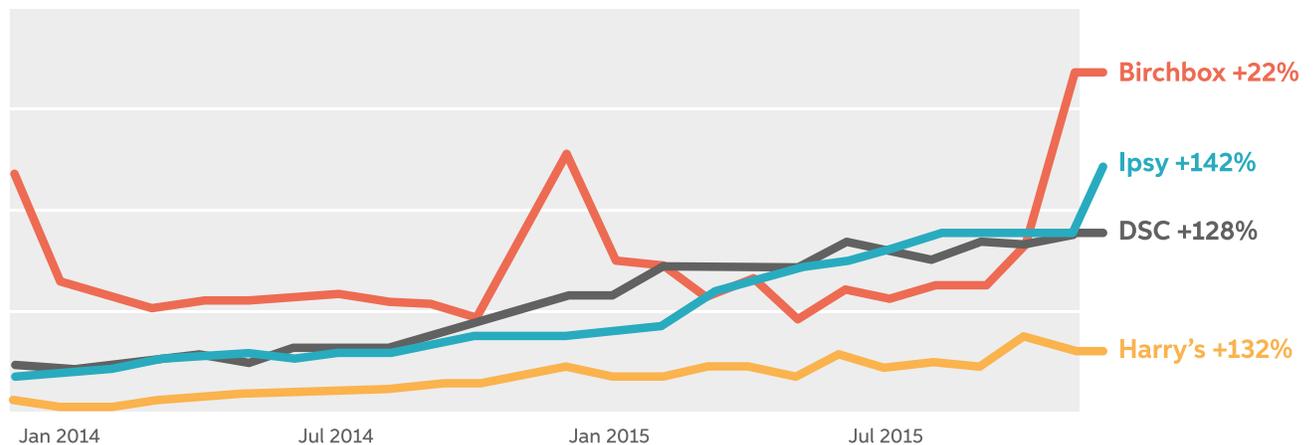
In the Discovery model, the mix of products varies within a defined range with each delivery. Value may be a component of the proposition, but the central proposition is usually about the excitement of ‘unboxing’ the product. Any Google search for Birchbox or Ipsy will lead to thousands of links to unboxing videos where people share their excitement as they open their monthly box and discover the beauty samples within.

A rich array of merchants play in the space between these two models. Hello Flo, for example, mixes a monthly supply of feminine hygiene products with indulgent treats. Meal Solutions providers such as HelloFresh, Plated, and Blue Apron offer a weekly supply of meals, but mix recipes and ingredients each week.

## Growth

Any discussion of the subscription space has to begin with growth – and leading subscription players have enjoyed plenty of it. Birchbox, the most mature of the group, grew by 22 percent in the period December 2014 – November 2015 compared with the previous 12 months. Ipsy, Harry’s and Dollar Shave Club all grew by triple digits during that timeframe.

Monthly Sales for Selected Subscription Merchants



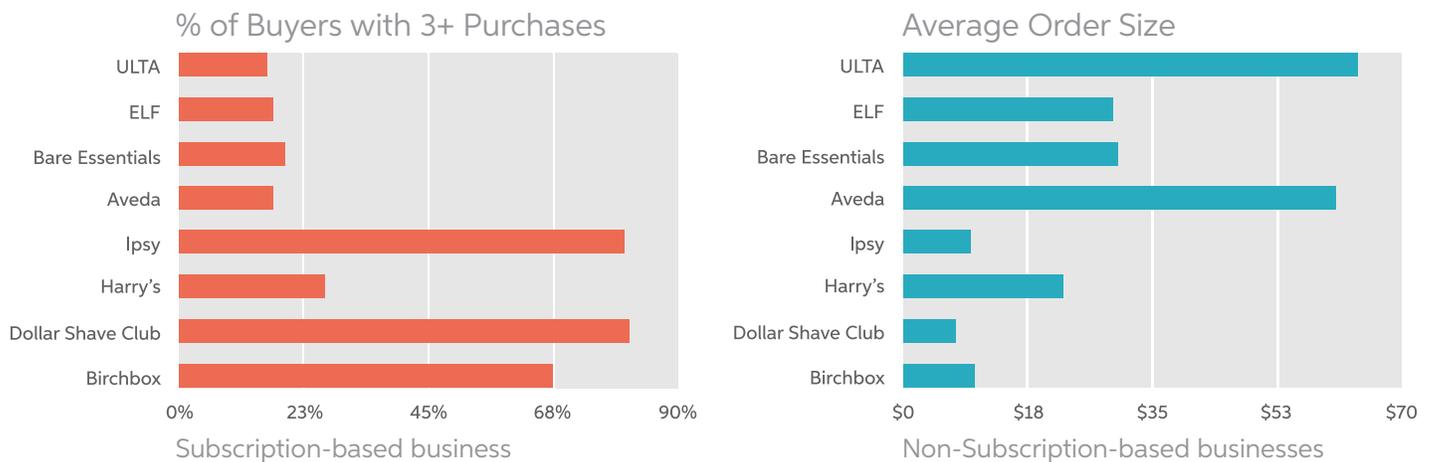
# Do consumers engage differently with subscription businesses than traditional ones?

The distinguishing feature of successful subscription-based retailers is a high level of repeat purchase; but there is often a tradeoff against average order size. A review of four health and beauty retailers with predominantly subscription-based models against a group of non-subscription health and beauty retailers illustrates the key differences.

Amongst the (mostly) pure subscription merchants (Birchbox, Dollar Shave Club, and Ipsy), we see very high repeat customer rates, with 68, 82, and 81 percent, respectively, of customers' purchasing more than three times. Average order sizes, though, are quite low, at \$10, \$8, and \$10, respectively. The non-subscription retailers: Aveda, Bare Escentuals, ELF, and Ulta see fewer instances of repeat purchasing – ranging from 16 percent to 19 percent of customers with more than three purchases. But they enjoy far better average order sizes, at \$62, \$31, \$30, and \$65, respectively.

Harry's, for the most part a subscription player, has been able to extract larger order sizes than competitor Dollar Shave Club by marketing itself as a premium product and by offering larger pack sizes that take more time to replenish. It acts as a hybrid between the different models, and the numbers reflect that.

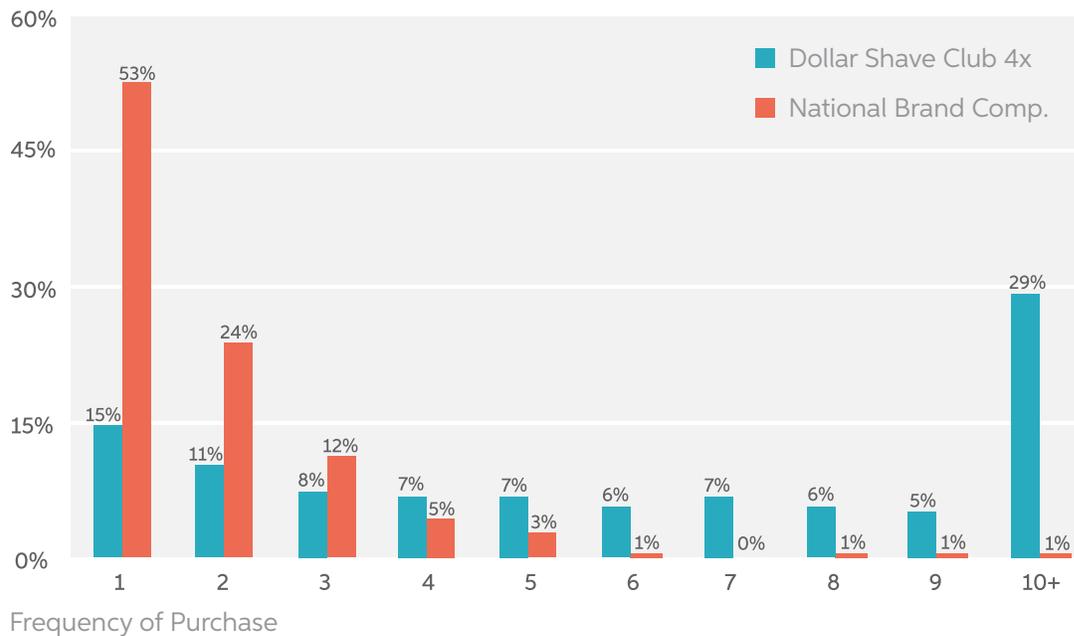
## Subscription-based business generally enjoy higher frequency, lower average order size



Amazon's Subscribe and Save program is another interesting example of the tradeoff between average order size and frequency. The chart below looks at frequency of purchase for a Dollar Shave Club razor, The 4x, compared with a national brand selling through Amazon's Subscribe & Save program. The average price per order for the Dollar Shave Club razor was \$6.11, compared with \$24.51 for the competing brand. DSC takes a drubbing on average order size, but excels on frequency, with 66 percent of customers buying more than three times, compared with only 11 percent for the national brand on Subscribe & Save.

## Subscription Frequency

### Dollar Shave Club 4x vs National Brand on Amazon Subscribe & Save



## Impact of subscriptions on replenishable CPG categories.

When we look across a variety of CPG categories, we see wide variance in subscription penetration of the online category. Shaving sets the high-water mark, with 68 percent of the category (by dollars) sold through subscription. The baby diaper category also has a significant share of consumers on subscriptions-- 45 percent. But the penetration numbers become less significant as we move down the list. Hair care and facial care see only two and one percent of the category selling through subscription, respectively.

The result is that in some categories, such as shaving and diapers, the challenges are to bring offline shoppers online with subscriptions. In other categories, such as hair care and facial skin care, the bigger challenge is to get online shoppers to shift to subscription.

## The role of marketing in subscription businesses

Marketing is the most important element of any successful subscription businesses. Amazon uniquely has the advantage of an enormous customer base as it tries to shift consumers into its subscription program. Upstart brands, though, have to start from scratch. Not only do they have to create awareness of their brands, but they also need to get consumers over a reticence to commit to a product they've never tried in

a subscription program. Social media has been critical for every successful subscription upstart that we're aware of. Birchbox created a phenomenon when it encouraged early customers to post 'unboxing' videos to YouTube as they opened their monthly boxes. Dollar Shave Club created marketing lightning with a very funny viral video. They were both very good, very lucky, or both; allowing social media to provide the initial awareness push. Both of these businesses, though, as they aspire to grow, are raising capital to support ongoing traditional media spending. According to iSpot.tv, Dollar Shave Club now outspends Gillette in television ad spend.

## The Brand Perspective

So far we've focused on the merchant side of the equation, but what about brands whose products are sold through subscription programs? How do subscriptions affect brands?

### The Replenishment Model

The data that we've looked at strongly suggests that consumers that are on replenishment subscription for brands tend to exhibit far stronger loyalty characteristics; notably share of wallet. When a consumer starts a subscription program they tend to allocate virtually all of their spending within that category to the brand going forward.

A reasonable person could question cause and effect here: is it brand loyalty that draws consumers to subscription programs, or is it subscription that creates brand loyalty? Our analysis has shown that while consumers that enroll in a brand through a subscription program generally had an established preference to that brand, there is generally growth in category wallet share—a leading indicator of loyalty—after the subscription begins.

### The Discovery Model

From the perspective of brands, Discovery-oriented subscriptions are another tool in their sampling repertoire. Slice conducted a study in 2014 looking at Birchbox shoppers spending on beauty products before and after joining Birchbox. As one would expect, Birchbox customers do spend money on Birchbox's marketplace, where they can buy products whose samples they enjoyed. More surprisingly, Birchbox subscribers seemed to increase their spending on presumably competitive retailers. Spending on Ulta increased by six percent after Birchbox subscriptions started, and a similar five percent lift in dollars were on Sephora.

# Our take

It is clear that subscriptions have become a significant force in the ecommerce domain, both for replenishment and for discovery. While there is a faddishness about the online subscription space, and a resultant proliferation of competitors, the fact remains that subscriptions align the desire of brands and retailers to lock in customers with a consumer desire for value, convenience, and exploration.

We expect that a subscription program will soon be a minimal expectation for most retailers of replenishable goods – and that retailers will use those programs to extract promotional dollars from brands. Further, we expect that subscription boxes will become the leading channel for distribution of samples in the health and beauty and grocery categories.



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Ken brings a rich online retail background to Slice Intelligence. Most recently, Ken was senior vice president, media analytic solutions at Nielsen, where he developed several innovative digital commerce measurement and advertising effectiveness solutions. Prior to Nielsen, Ken was an analyst at Jupiter Research, where he was an early thought leader, trusted adviser and media source on e-commerce. His prescient outlook on fledgling e-commerce industry was a key contributor to Jupiter's dominance as a digital media zeitgeist at the dawn of the Internet.

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## About slice intelligence

With a panel of over 4 million online shoppers, Slice Intelligence directly measures all digital commerce activity from the consumer. By collecting and cataloging actual shopping behaviors from online shoppers in the wild, Slice Intelligence precisely measures what others have only been able to approximate, revealing new insights about online shoppers and their behaviors.

Slice Intelligence's retailer-independent methodology captures commerce as it happens at the item level, across all merchants. While most companies rely upon panels of online users or of people who scan or take pictures of their receipts, Slice measures all online shopping activity directly gathered from consumers' purchases. This allows Slice Intelligence to collect more data, at a higher level of quality than other methods. This intelligence gives clients unparalleled insights about everything their customers buy, even when shopping elsewhere, eliminating the need to use less reliable and less actionable a research products.

Because we extract information from email receipts, we are able to capture all purchases on any and all devices. This "hands-off", device-agnostic approach to measurement solves many of the challenges that have plagued online and household scanning panels, without the gaps that inherently occur due to inconvenience, multiple device usage and panel recruitment challenges.

Only Slice Intelligence measures all online purchases, using the same methodology, tied to the same consumer, including that consumer's historical purchase patterns to reveal loyalty and switching behavior, and brand affinities.

Slice Intelligence comes from a methodology developed at Stanford that extracts online purchase data from e-receipts in consumers' inboxes. This refined data collection method enables impeccable, near real-time data from a global panel of 4 million people, the largest panel of online shoppers anywhere.

Slice Intelligence is led by a team of measurement industry executives who have brought some of the most innovative and successful digital measurement products to market.

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# Methodology

Slice Intelligence uses a proprietary technology that was developed by machine-learning scientists from Stanford University. Slice Intelligence's technology identifies e-receipts within inboxes, extracts every available data point about every purchase at the item level, normalizes measurements across retailers and structures the data into an industry-wide taxonomy and catalog. All this happens at high speed and accuracy, and is reported daily.

With 4 million panelists, Slice Intelligence has the largest, most representative panel of online shoppers. Recruited through sources including: partners who leverage the Slice API to create new compelling online experiences; the popular Slice shopping utility which enables shoppers to organize, track, and manage their online purchases; and the Unroll.Me service which reduces inbox clutter.

Our methodology provides near real-time data that is representative of the U.S. online population and correlates closely to the U.S. Department of Commerce and public disclosures by online retailers.