



PRODUCT CATEGORY REPORT

# DIGITAL CAMERAS

## Overview

The way we document our lives through pictures has changed more in the past decade or so than ever before. Long gone is the time when you waited for days to get your film developed. Digital technology brought instant gratification to photography. The first digital camera was developed at Kodak in 1975, but it was the early 1990s by the time it became mainstream in the market. By the early 2000s, digital cameras had replaced nearly all film cameras. The technology has improved by leaps and bounds since then. The global digital camera market is expected to reach a market value of \$5 billion by 2020.

We dug into the Indix Cloud Catalog to explore the data stories digital cameras and lenses have to tell with regard to pricing, assortment, brands, stores, and more.

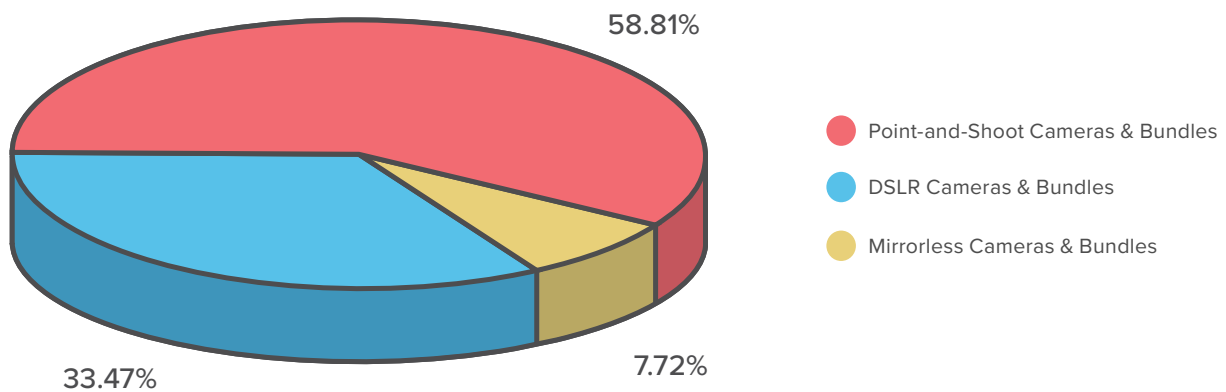
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# SUMMARY

For our category report, we analyzed three main types of digital cameras – the humble point-and-shoot camera, the digital single-lens reflex camera (DSLR), and the mirrorless interchangeable lens camera. Both hobby and professional photographers invest in lenses for their craft. Hence, we also included lenses in our analysis to get a more comprehensive view of the digital camera ecosystem.

You will find some “Photographer’s View” snippets peppered throughout this report. In these sections, our in-house shutterbug Breann Harper shares her take on what the data story means to photographers.

## Types of Digital Cameras: Market Mix

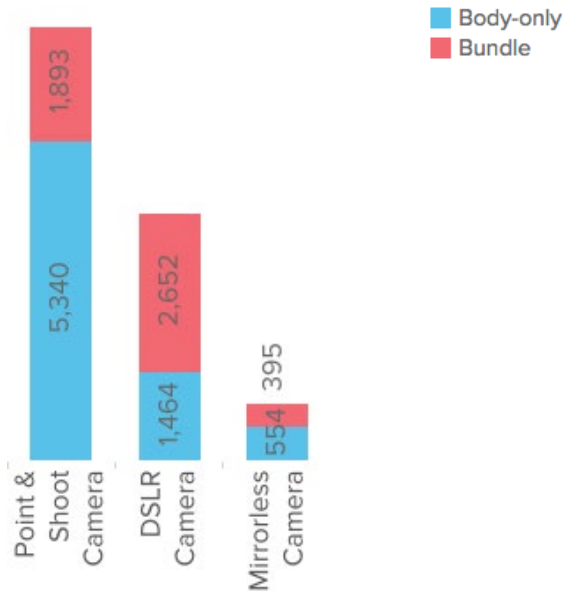


The Indix Cloud Catalog carries 12,298 in-stock digital cameras spanning 42,810 offers (product + store combinations) selling across 62 online stores from more than 35 brands. A majority of the assortment (about 60%) is still composed of point-and-shoot cameras, although the proliferation of high-quality smartphone cameras has hurt this sub-category. Mirrorless interchangeable lens cameras occupy a rather small segment of the market right now.

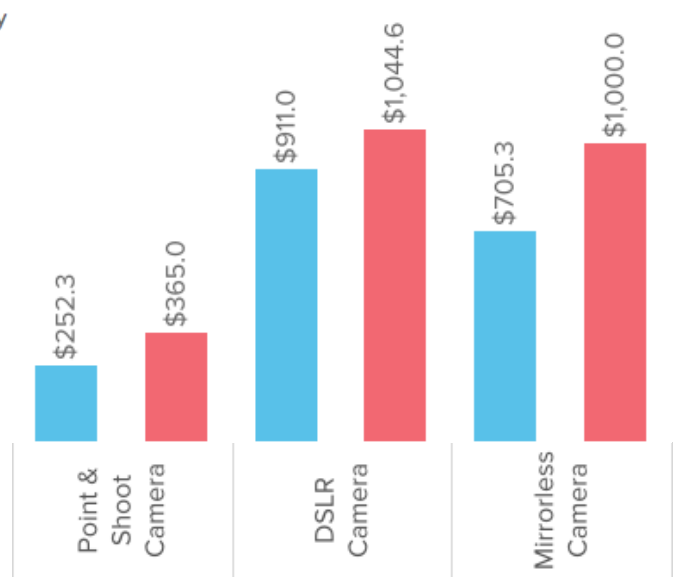
Note that we analyzed digital cameras along two axes– body-only (just the camera unit) and bundles (these include accessories, lenses, tripods, covers, etc.). While the product count of point-and-shoot cameras is the highest, their average price is the lowest. DSLR cameras are more than 3.5 times as expensive as point-and-shoot cameras.

*Note: All datasets were pulled from the Indix Product API in January 2017 and include only “in stock” products. The sample comprised 12,000+ products across 62 online stores and more than 35 brands. Quantitative data processing techniques including outlier tests, data standardization, classification models, and distribution models (frequency and density histograms, box plots) were used for the statistical analysis.*

## Comparison Across Sub-Categories: Product Count



## Comparison Across Sub-Categories: Sale Price



## Digital Cameras & Lenses: Highlights

Here are some of the highlights from our analysis of more than 12,000 products:

- Despite growing usage of smartphone cameras, there are still plenty of point-and-shoot cameras on the market.
- Top 8 digital camera brands: Canon, Nikon, Sony, Fujifilm, Panasonic, Olympus, Samsung, and Pentax.
- DSLR cameras are the most expensive of all.
- Sony sells the most expensive point-and-shoot cameras.
- Sears carries the largest assortment of cameras.
- The median price of DSLR cameras hasn't fluctuated much in the past three and a half years.
- Only 14.6% of all digital cameras are Wi-Fi enabled.
- There are more competitive brands in the lens market than in the camera market.

### PHOTOGRAPHER'S VIEW

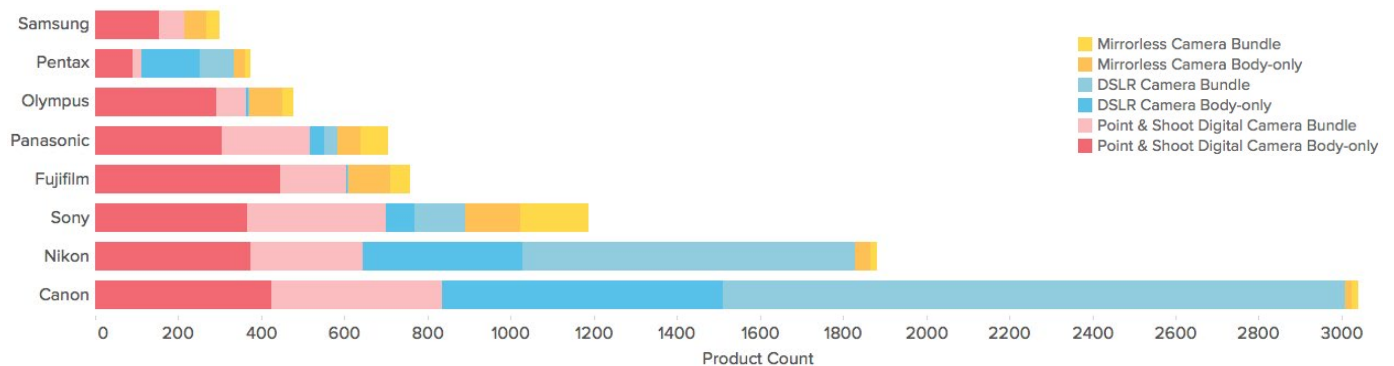
#### Buying Body-Only vs. Bundle

Buying a bundled package is great for new photographers who have no idea where to start. They typically come with one or two basic lenses, and often include other items such as SD cards, tripods, filters, etc. If you were to purchase all these items separately, it could get very expensive. A body is great if you already have lenses, or just need to upgrade to the newest technology.

# TOP BRANDS

The top three digital camera brands are Canon, Nikon, and Sony. Other significant players include Fujifilm, Panasonic, Olympus, Samsung, and Pentax. These eight brands comprised 70.7% of all the online assortment and formed the dataset for our analysis. While Nikon, Canon and Pentax focus more on DSLR technology, all other brands are introducing more mirrorless cameras.

## Top 8 Brands by Product Count (Fig. 1.1)

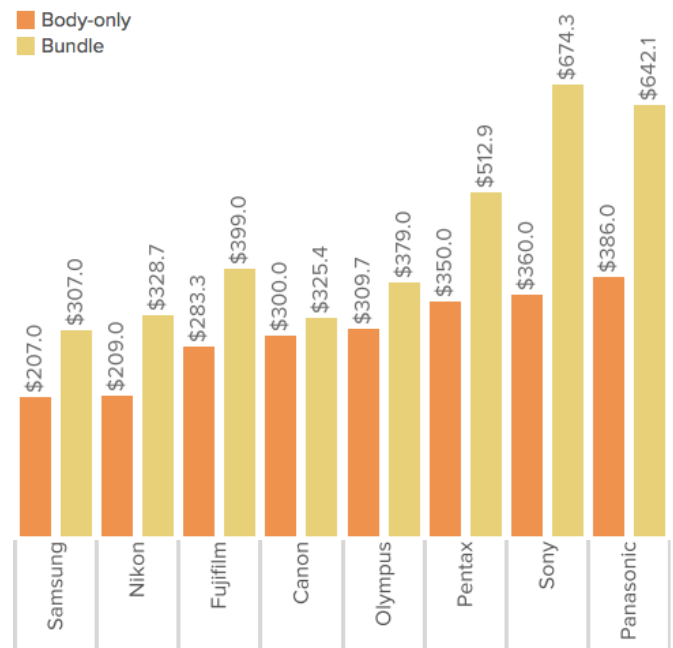


### PHOTOGRAPHER'S VIEW

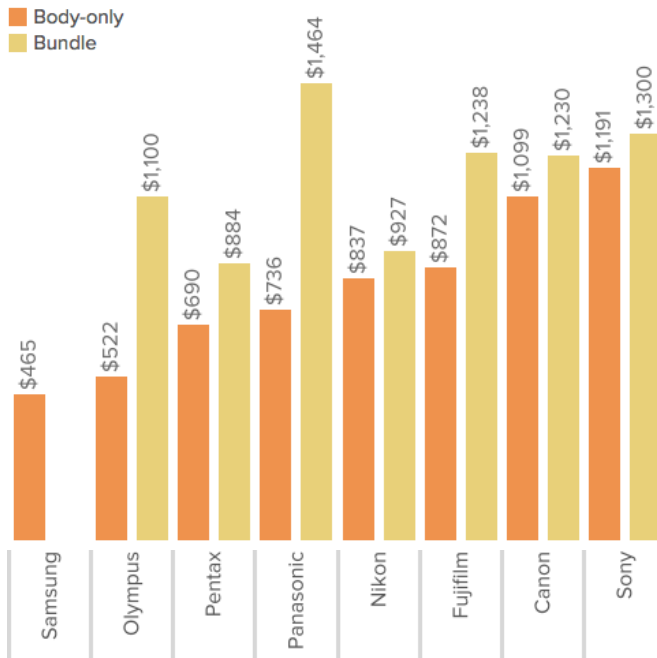
#### What Makes Canon and Nikon Top Dogs?

Both Nikon and Canon introduced auto-sensors in the 1980s. This is what is known today as the auto setting. This set them apart technology-wise from other cameras. Also, these two companies are lens makers. Since camera lenses tend to be the most expensive part of a new camera, once you invest in those lenses, it is really difficult to switch to another manufacturer.

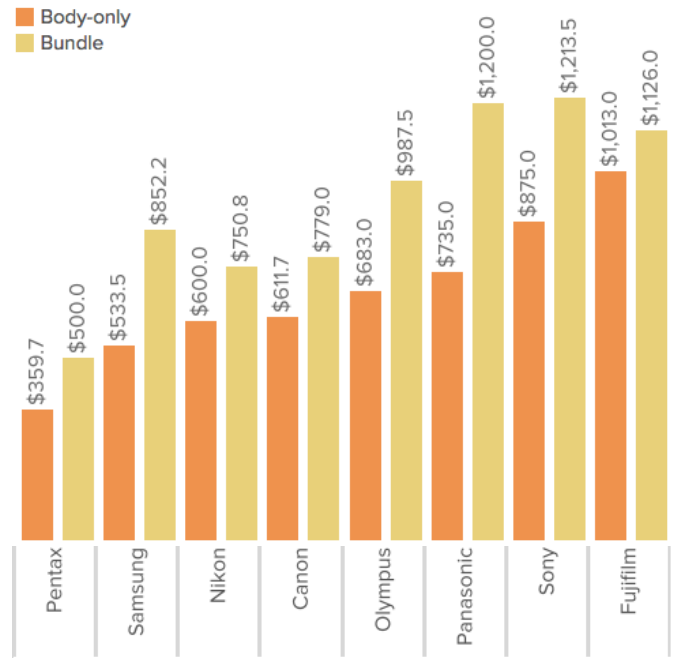
## Point-and-Shoot Cameras: Median Price of Top 8 Brands (Fig. 1.2)



## DSLR Cameras: Median Price of Top 8 Brands (Fig. 1.3)



## Mirrorless Cameras: Median Price of Top 8 Brands (Fig. 1.4)



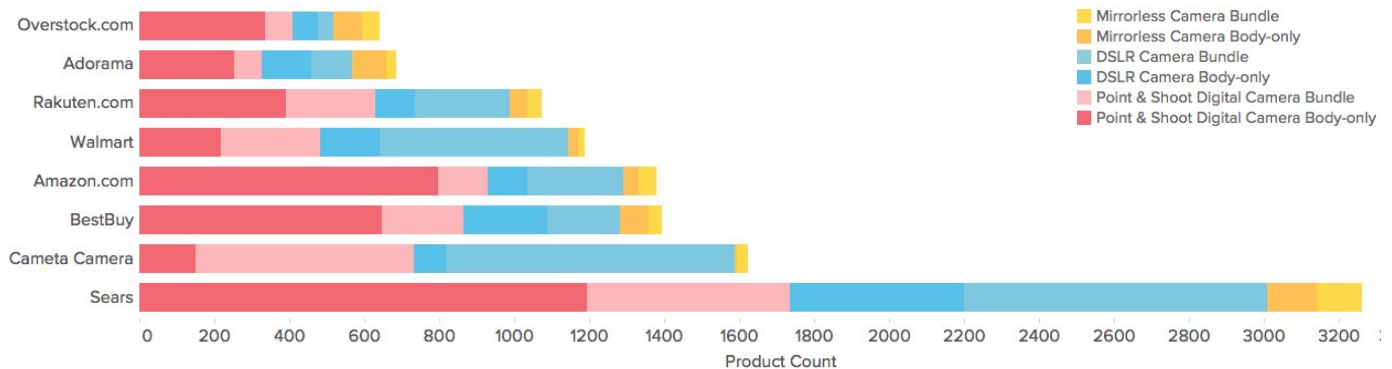
## Insights:

- Canon has almost three times as many products as Sony, which is the third leading brand (Fig. 1.1).
- A majority of the DSLR camera bundles are sold by Canon and Nikon (Fig. 1.1).
- Fujifilm, Olympus, and Samsung are not competitive players in the DSLR market (Fig. 1.1).
- Point-and-shoot cameras:
  - The median price range for only camera bodies is from \$207 to \$386 (Fig. 1.2).
  - Bundles, on the other hand, go from \$307 to \$674. This is because of the addition of accessories in bundles (Fig. 1.2).
  - The difference in the prices of bundles and camera bodies only is greatest for Sony and Panasonic (Fig. 1.2).
- DSLR cameras
  - Samsung doesn't offer any DSLR camera bundles (Fig. 1.3).
  - For most brands, with the exception of Olympus, Panasonic, and Fujifilm, the price of bundles is quite close to that of just the body (Fig. 1.3).
  - Based on price of body only, Sony is the most expensive, while Samsung is the cheapest brand (Fig. 1.3).
- Mirrorless cameras:
  - Panasonic and Sony are the most expensive brands, and quite competitively priced with each other (Fig. 1.4).
  - Pentax mirrorless cameras are cheapest at a median price of \$359.7 (Fig. 1.4).
  - The body of Fujifilm cameras at \$1013 is almost three times more expensive than that of Pentax cameras (Fig. 1.4).

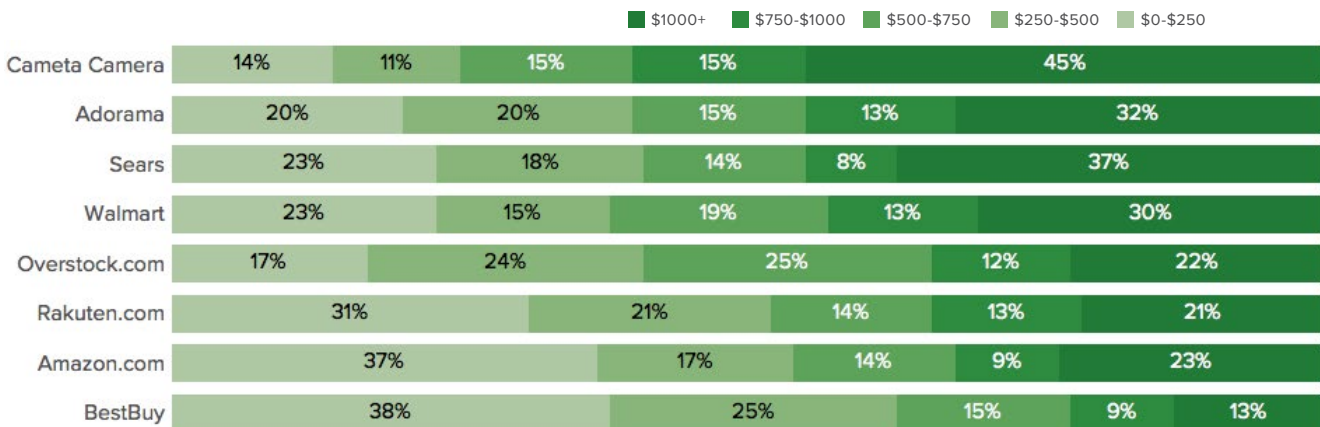
# TOP STORES

The leading online stores for digital cameras are Sears, Cameta Camera, BestBuy, Amazon, Walmart, Rakuten, Adorama, and Overstock. Although more than 60 online stores sell digital cameras, these eight carry 68.3% of the assortment.

## Top 8 Stores by Product Count (Fig. 2.1)



## Price Distribution at Top Stores (Fig 2.2)



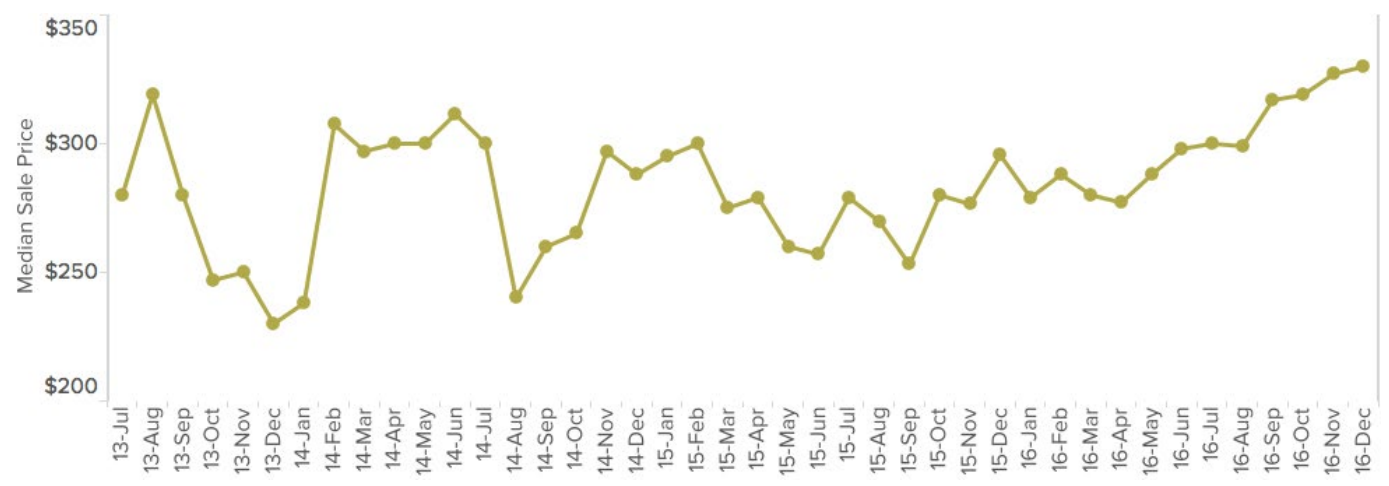
## Insights:

- Sears carries more than double the assortment of its nearest competitor, Cameta Camera (Fig. 2.1).
- More than 50% of the products at Sears, BestBuy, Amazon.com, Rakuten.com, and Overstock are point-and-shoot cameras (Fig. 2.1).
- Overstock has the most limited choice in DSLR cameras (Fig. 2.1).
- Sears and Cameta Camera both sell a large number of DSLR cameras (Fig. 2.1).
- None of the stores carry a significant assortment of mirrorless cameras (Fig. 2.1).
- 45% of the products at Cameta Camera cost more than \$1,000 (Fig. 2.2).
- Rakuten, Amazon, and BestBuy all have at least 30% products costing less than \$250 (Fig. 2.2).
- All the stores are competitively placed for products priced between \$500 and \$1,000 (Fig. 2.2).
- BestBuy has the smallest number of products priced above \$1,000 (Fig. 2.2).

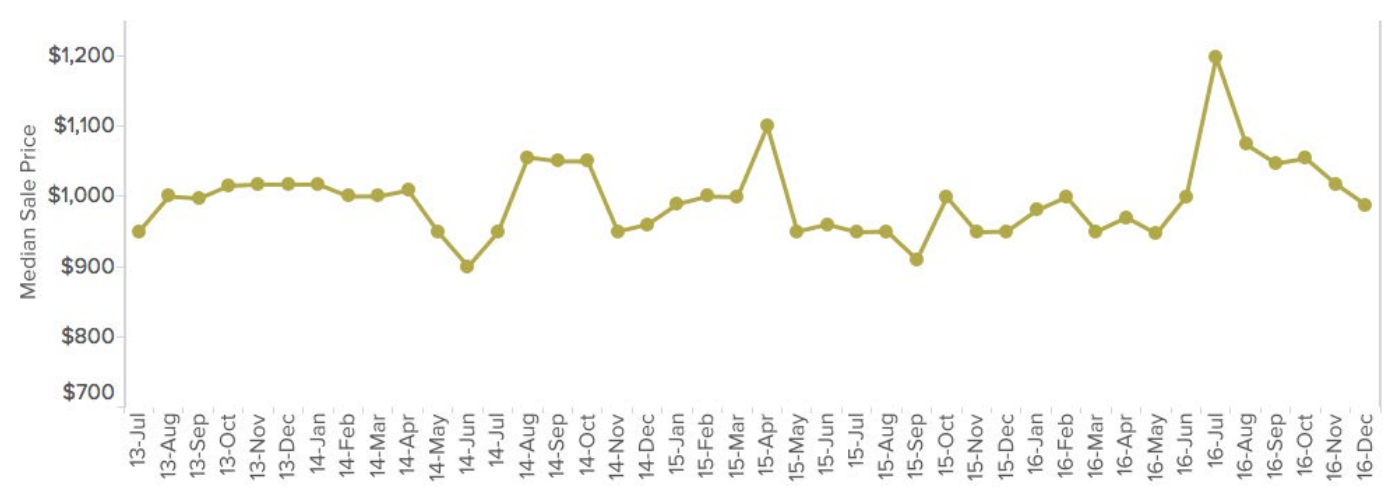
# PRICE HISTORY

We analyzed the price history of point-and-shoot cameras (body only), DSLR cameras (body only), and mirrorless cameras (body only) from August 2013 to December 2016.

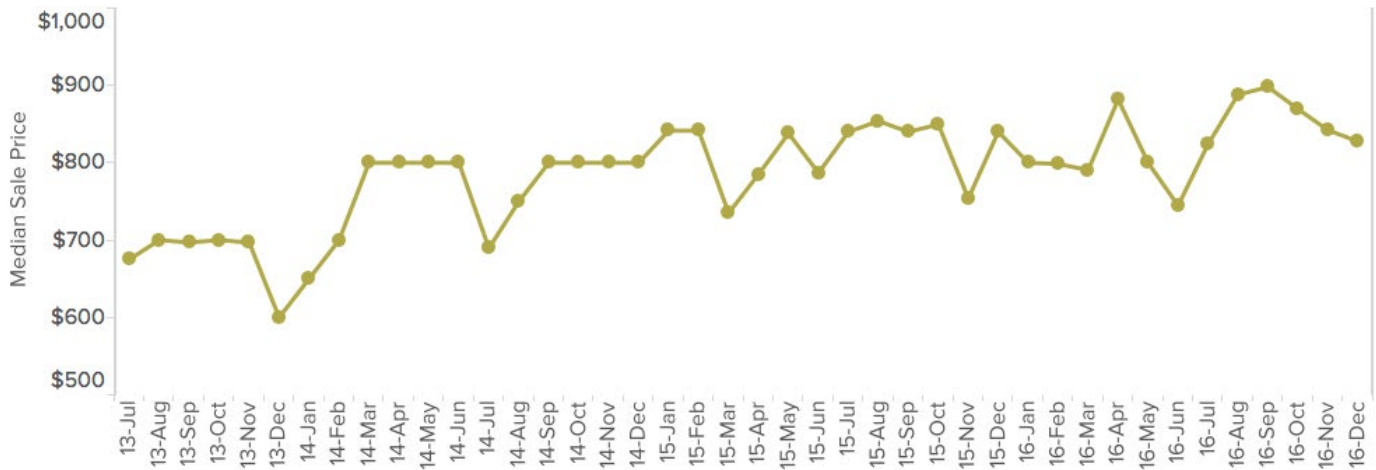
Price History of Point-and-Shoot Cameras (Fig. 3.1)



Price History of DSLR Cameras (Fig. 3.2)



## Price History of Mirrorless Cameras (Fig. 3.3)



### PHOTOGRAPHER'S VIEW

#### Why Haven't DSLR Prices Fluctuated?

A key factor is the advancement of smartphone cameras, and the emergence of smaller, compact mirrorless cameras. With more competition, prices have to stay competitive. A DSLR is an investment, targeted at the serious amateur to professional photographer.

#### Why Is the Price of Mirrorless Cameras Increasing?

A mirrorless camera's big appeal is the compact size, relative to the DSLR's, and the option for interchangeable lenses. They are better at continuous shooting, and typically match DSLRs feature for feature. In fact, they tend to go a step above with more mirrorless cameras offering Wi-Fi and sharing options. Perhaps because they are newer, have tons of great features, and are catching on faster, there is more room for price increases.

## Insights:

### POINT-AND-SHOOT CAMERAS

- From 2013 to 2015, there were typically some price drops around August, September, November, and December. This could probably be attributed to Labor Day and holiday sales. However, this pattern didn't repeat in 2016 (Fig. 3.1).
- Since April of 2016, the price of point-and-shoot cameras has been increasing steadily (Fig. 3.1).

### DSLR CAMERAS

- There hasn't been a major price change over the last three and a half years (Fig. 3.2).
- The exception is that in June 2014, the price of DSLR cameras dropped slightly below \$900 (Fig. 3.2)

### MIRRORLESS CAMERAS

- Overall, the price of mirrorless cameras has increased over the past three and a half years (Fig. 3.3).
- Through 2013, mirrorless cameras cost about \$600–\$700. Now they are more competitively priced with DSLRs (Fig. 3.3).



# FEATURES

We pivoted our analysis on two specific camera features – Wi-Fi and megapixels. Point-and-shoot cameras are in direct competition with smartphone cameras, and have to put more effort into differentiating themselves in the market. Hence, features like Wi-Fi connectivity are beneficial in motivating consumers to buy point-and-shoot cameras.

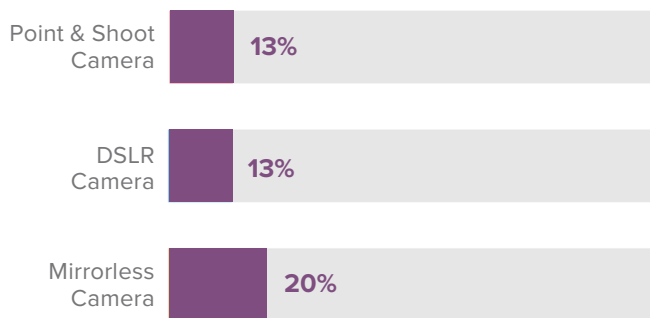
Within the Indix Cloud Catalog, 14.6% of digital cameras are Wi-Fi enabled. This feature is found in DSLR and mirrorless cameras as well, in addition to point-and-shoot cameras.

## PHOTOGRAPHER'S VIEW

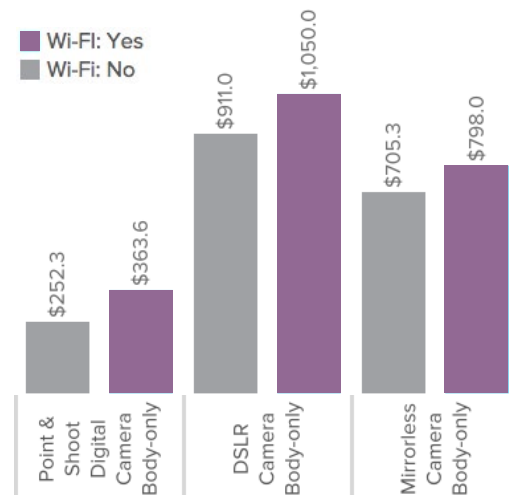
### Point-and-Shoot vs. Smartphone Cameras

Cell phones are quickly replacing point-and-shoot cameras. For those who want to snap a quick selfie or scene, camera phones are more than enough. However, while today's phones are built with advanced camera software in them, most cell phones do not have variable aperture and optical zoom. They do not allow you to change ISO in low-light settings, so images have more noise. Point-and-shoots have more option and give the photographer more control.

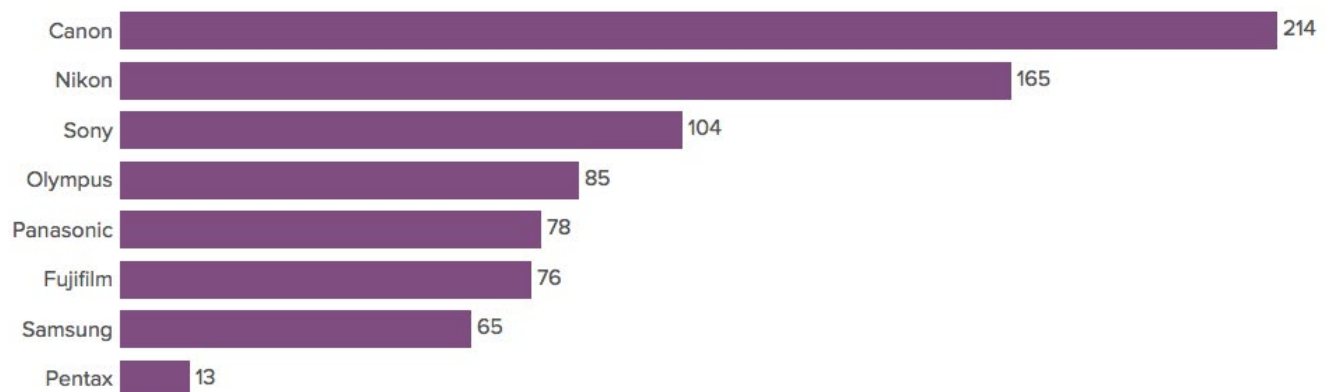
### Percentage of Wi-Fi Cameras (Fig. 4.1)



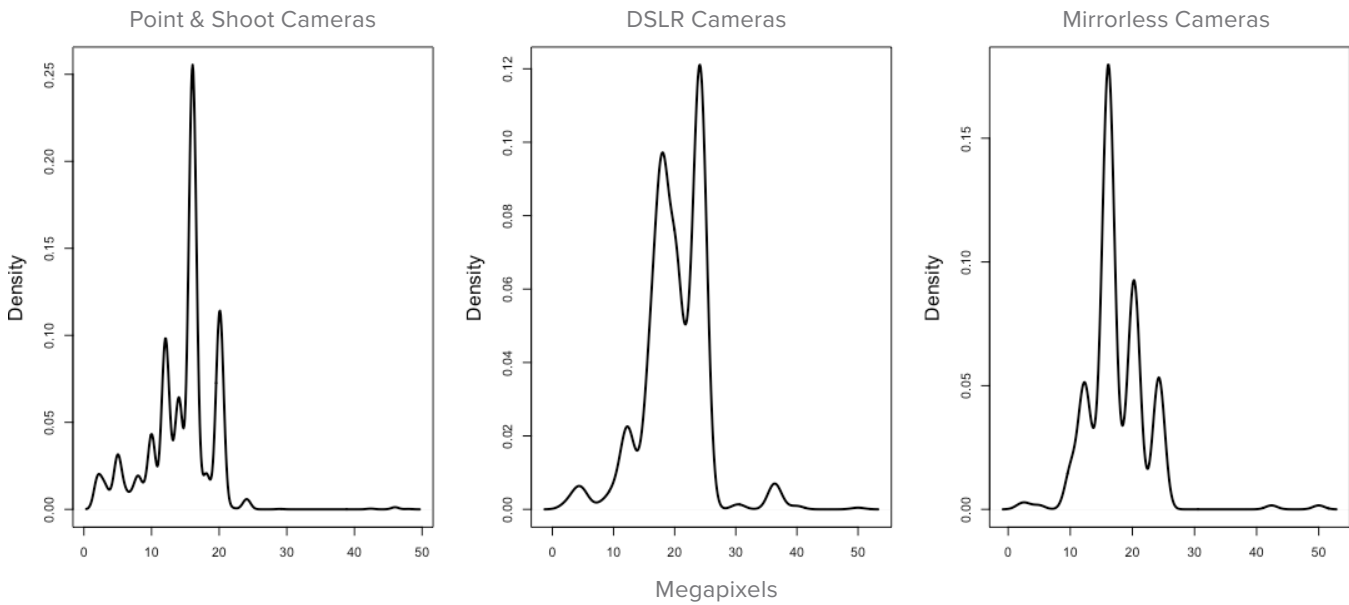
### Price of Wi-Fi Cameras (Fig. 4.2)



### Product Count of Wi-Fi Cameras for Top 8 Brands (Fig. 4.3)



## Distribution of Megapixels (Fig. 4.4)

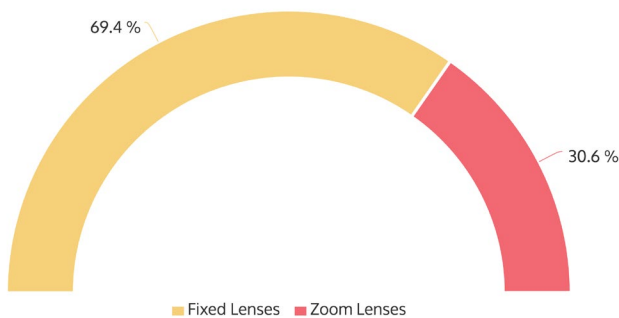


### Insights:

- More mirrorless cameras are Wi-Fi-enabled than point-and-shoot or DSLR cameras (*Fig. 4.1*).
- On average, Wi-Fi enabled cameras cost about \$100 more than their standard counterparts (*Fig. 4.2*).
- Canon and Nikon lead the pack for Wi-Fi cameras (*Fig. 4.3*).
- Canon sells more than two times the number of Wi-Fi cameras as Sony, which is the third leading brand (*Fig. 4.3*).
- The megapixel distribution for more than half of the cameras in all three sub-categories is as follows:
  - Point-and-shoot cameras: 12–16 MP
  - DSLR cameras: 18–24 MP
  - Mirrorless cameras: 16–20 MP (*Fig. 4.4*)

# LENSES

Advanced photographers who are interested in taking more than simply selfies are likely to be invested in getting different lenses for their digital cameras. Depending on if they're shooting indoors or outdoors, the lighting conditions, speed of action, etc., people work with different lenses. We analyzed lenses that serve both DSLR and mirrorless cameras. The Indix Cloud Catalog carries 9,323 in-stock digital camera lenses spanning 27,268 offers (product + store combinations) selling across 32 online stores from more than 35 brands. 69.4% of all lenses are fixed lenses while the remaining 30.6% are zoom lenses. The median sale price of zoom lenses is double that of fixed lenses (\$438 vs. \$219).



## Lenses classification by focal lengths:

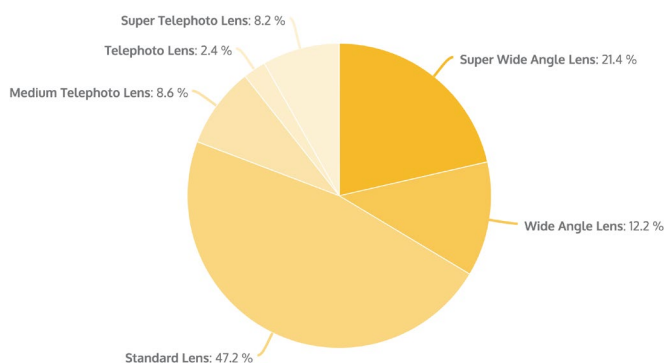
- Super Wide Angle Lens: <20mm
- Wide Angle Lens: 21–35mm
- Standard Lens: 35–80mm
- Medium Telephoto Lens: 80–135mm
- Telephoto Lens: 135–300mm
- Super Telephoto Lens: >300mm

## PHOTOGRAPHER'S VIEW

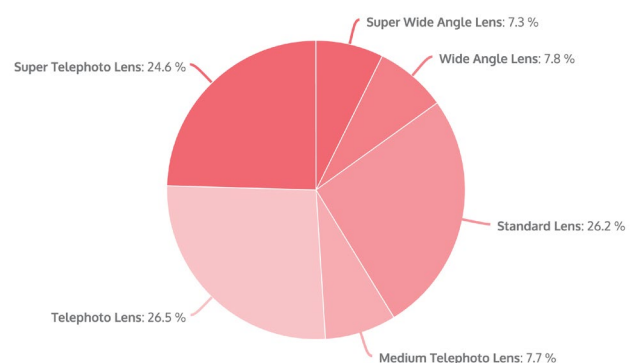
### Why Is a Fixed (Prime) Lens Cheaper Than a Zoom Lens?

Fixed lenses have only have one focal length while zoom lenses have a range of focal lengths. Because there are fewer moving parts, and they are simpler in their construction, fixed lenses tend to be cheaper. However, keep in mind that with a zoom lens, you only need one lens to do the work of two or three fixed lenses.

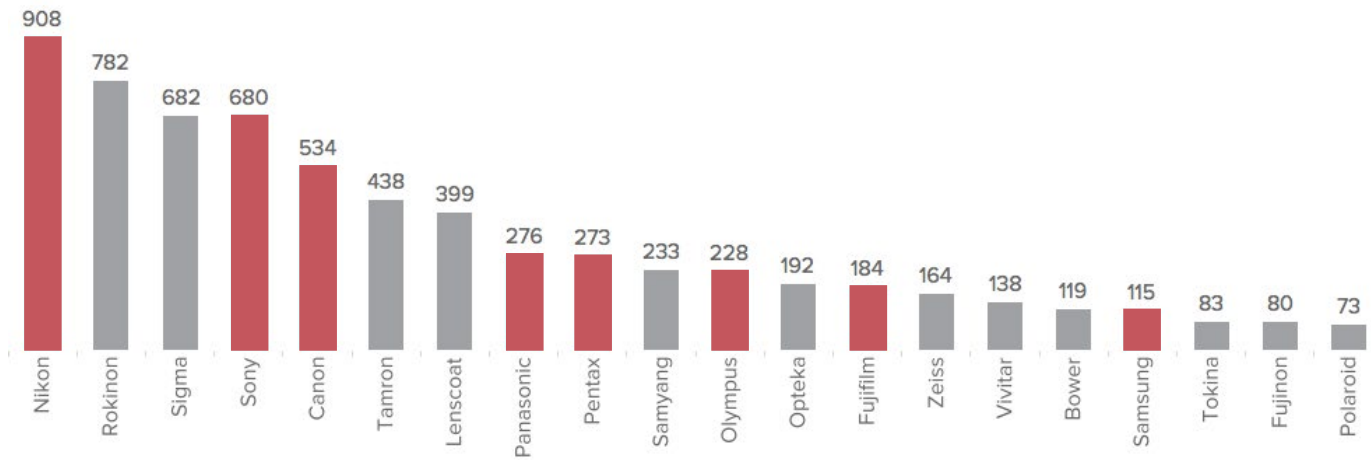
## Distribution of Fixed Lenses (Fig. 5.1) by Focal Length



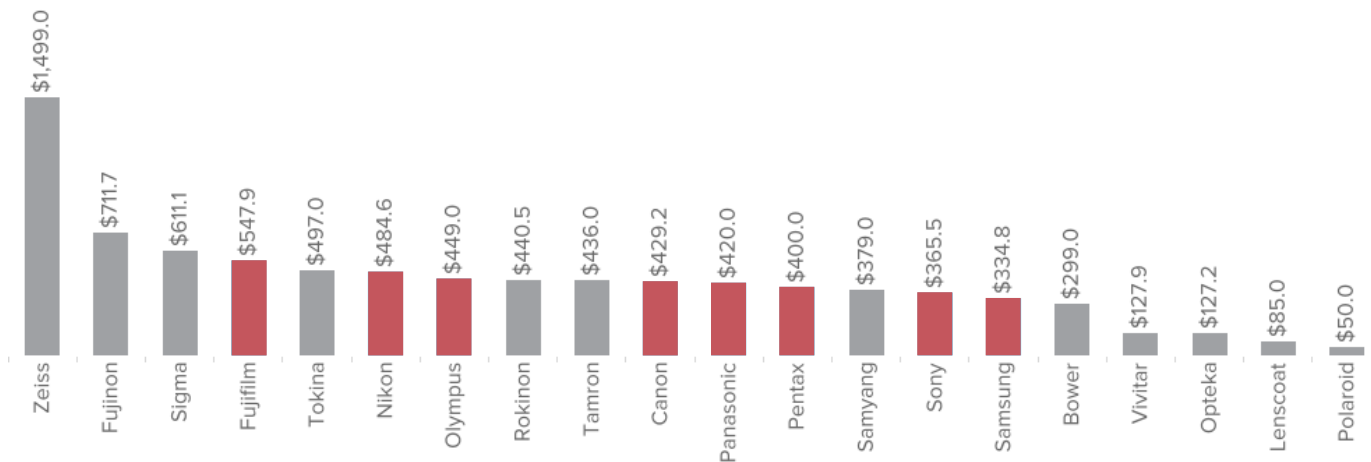
## Distribution of Zoom Lenses (Fig. 5.2) by Focal Length



## Product Count of Top Brands (Fig. 5.2)



## Median Sale Price of Top Brands (Fig. 5.3)



Note: Top 8 digital camera brands are marked in red.

## Insights:

- Standard focal length lenses comprise almost half of all fixed lenses (Fig. 5.1).
- Telephoto and super telephoto lenses make up a little more than half of all zoom lenses (Fig. 5.2).
- There are more significant brands in the lens market as compared to the digital camera market overall (Fig. 5.3).
- Nikon carries more than 12 times as many lenses as Polaroid (Fig. 5.3).
- Top five brands: Nikon, Rokinon, Sigma, Sony, and Canon (Fig. 5.3).
- Based on median price, Zeiss lenses are twice as expensive as the nearest competitor, Fujinon (Fig. 5.4).
- While Nikon leads in product count, it is the sixth most expensive brand at \$484.6 (Fig. 5.4).
- Six out of the top 20 brands have a median price less than \$350. The rest of them are priced between \$350 and \$711, with the exception of Zeiss at \$1499 (Fig. 5.4).

# CONCLUSION

Digital camera technology is changing and getting updated by the minute. Who knows what the future might bring? Here are some concluding thoughts based on what we saw in our analysis.

- Point-and-shoot cameras are still relevant in the market. Compared to DSLR and mirrorless, there is a much wider variety to choose from.
- Canon, Nikon, and Sony lead the digital camera market.
- Go to Sears, BestBuy, Rakuten, Amazon, or Overstock to buy a point-and-shoot camera.
- There is no particularly good time to buy a DSLR camera as its median price has held steady over the past 3.5 years.
- There is much room for growth in the Wi-Fi-enabled camera market.
- Mirrorless cameras are not as pervasive as DSLR cameras yet.
- DSLR cameras have a higher megapixel range compared to point-and-shoot cameras.



## BREANN HARPER

Our Commentator  
and Product  
Marketing Manager

Breann grew up in Dodge City, KS. In 2005, she moved to Seattle to finish her degree in Sociology and begin her career. In that time, she's held positions that require skills in customer service, marketing, and sales. She has spent the last six years in technology startups, finding success in being part of small teams where she can make a real impact. Her passion lies in researching customers and bridging gaps between sales and marketing teams. When she's not working, you'll find Breann doing photography, singing in jazz choir, and spending time with her friends.

## About Indix

At Indix, we're building the world's first Cloud Catalog. We collect product offers data such as price, availability, and seller information along with product catalog data like code-based identifiers and attributes from a combination of the web and our partners. We use AI and machine learning to gather, structure, clean, and verify product information from thousands of websites and feeds, and then surface this product information through a Product API and Product Feeds to help our customers make better decisions, drive innovation, and sell more products.

With more than one billion product offers from 1,600+ sites and nearly 50,000 brands, Indix has the scale and quality of product information you need to power the future of commerce.

Learn more at [www.indix.com](http://www.indix.com)