Big Data in fashion retail

WITH INDUSTRY CASE STUDIES

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Feeling the squeeze?

With the help of Big Data success is in the bag

RETVIEWS
ORGANISING FASHION INFORMATION

Roland Berger

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In a nutshell

SEE P. 4

SEE P. 7

SEE P. 8

Fashion companies are under pressure, with sales declining in key markets and prices being continuously pushed down by low-price fashion labels. Traditional players often find themselves stuck between strong vertical companies and influential digital giants. But help is at hand – in the form of Big Data. Roland Berger collaborates with fashion analytics company Retviews to provide in-depth analysis and insights into what is going on in the fashion world. This turns Big Data into a powerful tool for offline-based brands as well. Properly analyzed and interpreted, Big Data can help companies understand both their customers and their competitors. It has a wide range of applications in fashion retail, from lifecycle management and inventory planning to pricing and discounts. Fashion companies need to take action now.

Title: GettyImages/Tony Cordoza

Big Data

Times are tough in the world of fashion. Shoppers are increasingly able to compare prices for a wide range of brands instantly with the help of online search engines and comparison sites, putting downward pressure on prices. Discount brands have gained massively in popularity in recent years and online competitors have carved out a large share of the market. That leaves traditional players, especially brands lacking strong brand equity, in an unenviable position stuck between powerful vertical players and influential digital giants.

But help is at hand. Big Data – the massive datasets available to today's businesses thanks to advances in technology over the last decade – enables new insights into the fast-evolving fashion market. Traditional players, if they can develop the ability to handle and interpret this vast and at times overwhelming data resource, can gain invaluable insights into both the needs of their customers and the behavior of their competitors.

Big Data has clear applications in many areas of the fashion industry. It can form the foundation for successful lifecycle management, keeping brand images fresh while avoiding detrimental price erosion. It can revolutionize inventory planning, bringing agility to the supply chain and avoiding the stock-outs that so disappoint customers. And it can inform pricing and discounts, helping determine adequate pricing levels for brands and avoiding a downward spiral of markdowns.

Of course, handling massive datasets isn't easy. Collecting, processing and interpreting Big Data is challenging especially for traditional players. Companies would be well advised to build alliances with data analytics providers, sharing their technology and co-operating in order to achieve scale. Roland Berger and Retviews have come together to offer a data-gathering and analysis service – a way to help companies navigate a path through the complexity and leverage the power of data. Below, we show how fashion companies can use Big Data to avoid being squeezed out of existence and instead come out on top.

"Big Data and data analytics have become key success factors. In the future, the use of Big Data in real time will be a strong differentiator for product development, marketing and omni-commerce."

RICHARD FEDEROWSKI, ROLAND BERGER

= Big Deal

The squeeze is on: surviving a challenging market

Fashion companies are under pressure. In Europe, the important German and French markets are facing significant challenges such as strong ongoing consolidation. These two markets shrank particularly in the second half of 2018, with customers spending less and less of their disposable income on apparel and footwear. Meanwhile, the Italian market has been in continuous decline since 2013, a downward trend that seems unlikely to stop any time soon.

These challenges are not just driven by general economic trends. Fashion companies are subject to growing price pressure from customers that is partly the result of increased price transparency. Searching for prices on fashion websites or price comparison sites has never been easier and shoppers are increasingly price-sensitive as a result. Somewhere, there is always a sale going on.

How low can you go?

At the same time, low-price fashion labels such as TK Maxx and Primark have grown strongly in popularity over recent years. These brands and others like them are busy opening new bricks-and-mortar stores despite growing pressure from online sales. In 2017-18, for example, Primark opened 15 new stores and plans to open a further 14 in 2019. Consumers have accepted price entry points on the basis of discount brands, forcing other brands to follow suit. Consequently, four out of ten items in Germany are now sold at discounted prices, while in France almost half of all items are discounted.

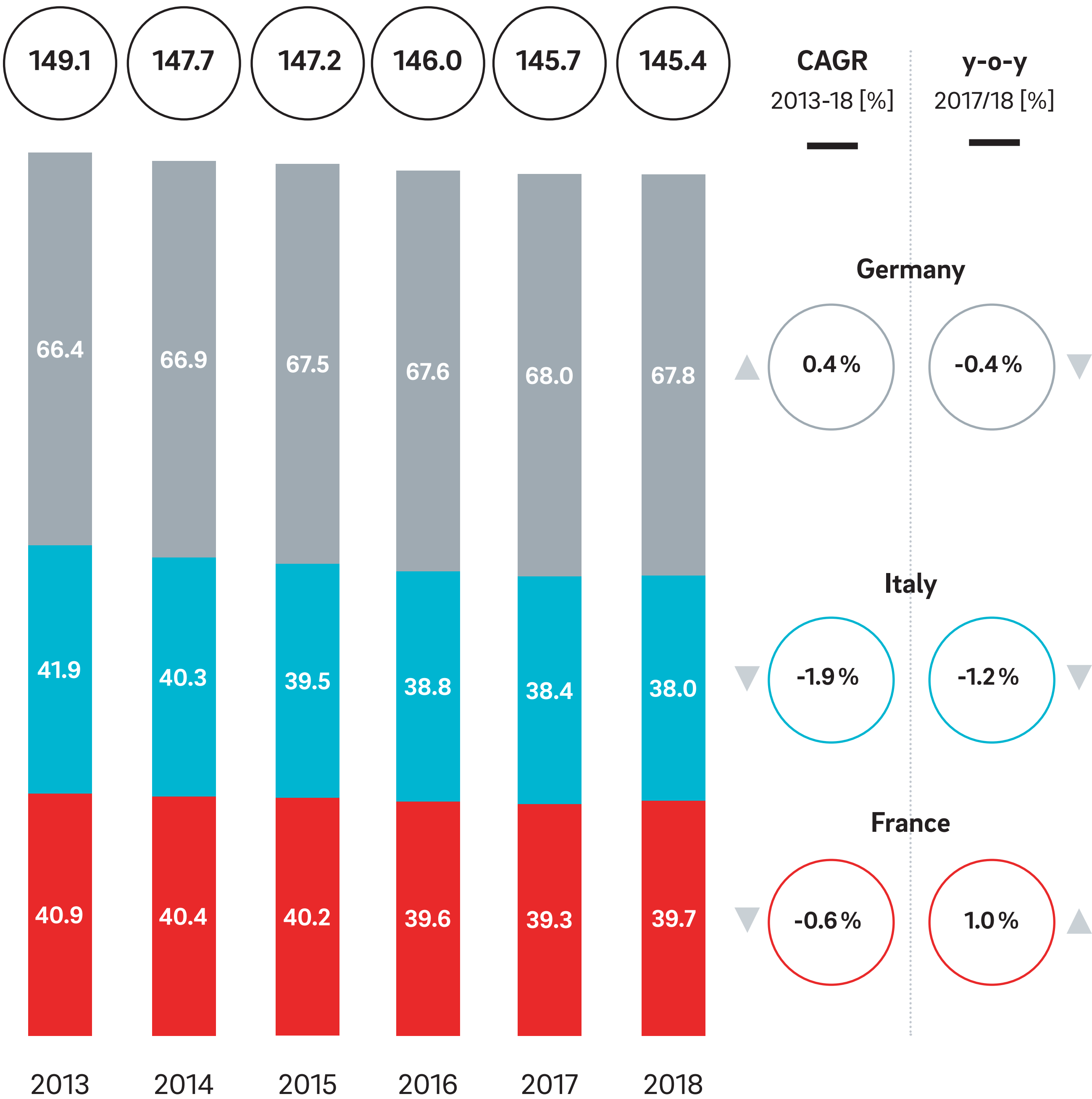
Meanwhile, vertically integrated players such as Zara, H&M and Mango have driven the powerful trend towards "fast fashion." These companies have full control of their supply chain and can essentially dictate the speed of the fashion industry, with mini-seasons now the norm rather than the two to four seasons previously typical of the industry. And even these players are now facing pressure from "ultra-fast fashion" companies such as ASOS, Bohoo and Missguided who are able to bring products to the market in weeks, not months.

Pure online players such as Zalando and Amazon, and multichannel players with a strong brand and online presence, have also captured a significant portion of the apparel and footwear market. Internet sales continue to gain market share, with online retail accounting for almost a quarter of the Italian market today and expected to make up more than 30 percent of sales in Germany by 2020.

Where does this leave traditional players? The situation is particularly tricky for mid-sized brands and companies that operate largely offline. They find themselves squeezed on both sides: On one side the big vertical players are setting the pace of the industry and shaping demand with their low-priced items, while on the other, digital retailers have mastered the online market and basic supply. What can they do? And how can they make sure that they come out on top rather than being slowly squeezed out of existence?

When the going gets tough, the tough no longer go shopping

Sales development in apparel and footwear, 2013-18, EUR billion

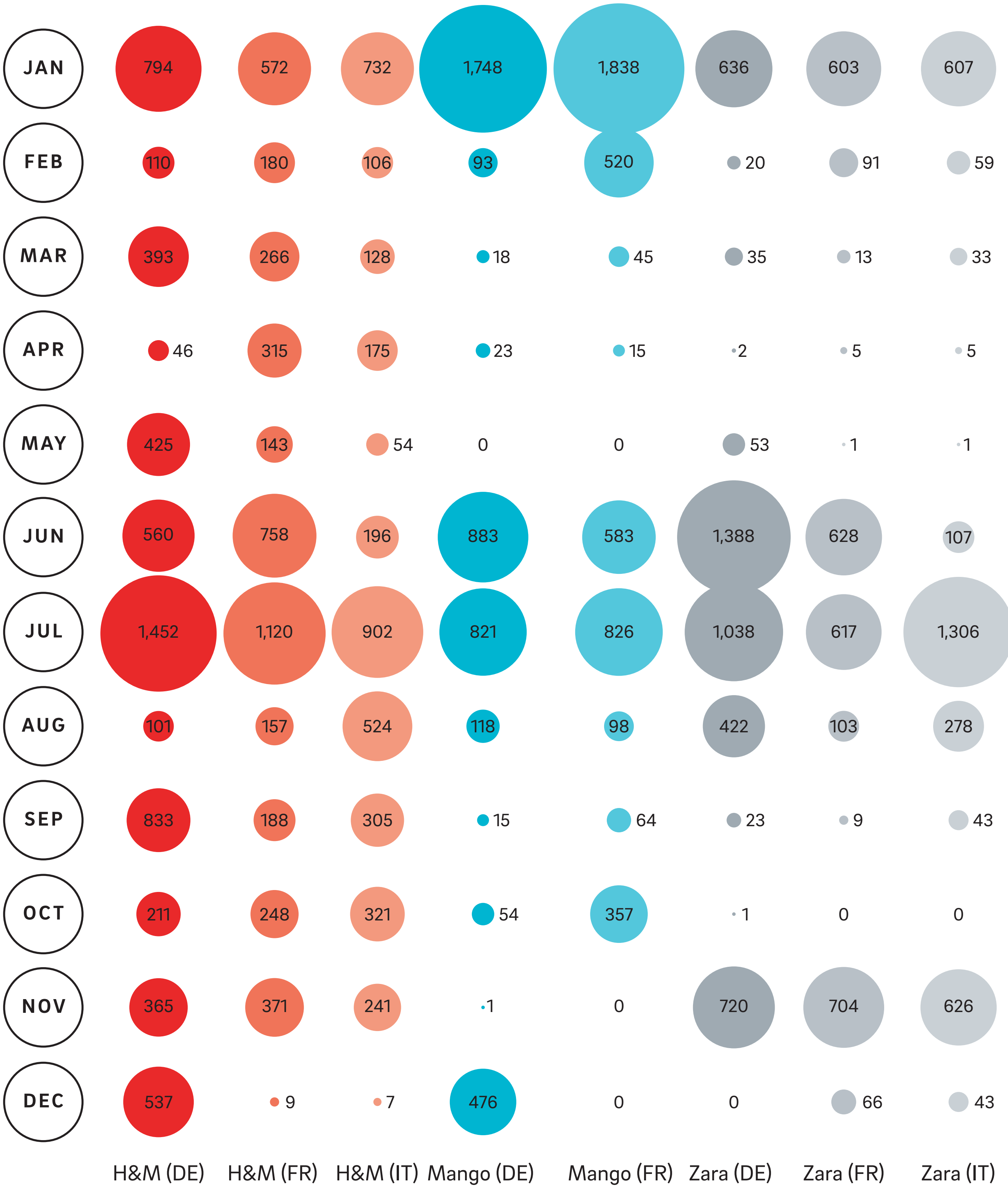


Source: Euromonitor, Roland Berger; Apparel and Footwear from trade sources/national statistics

When to discount

Discounted blouses and shirts, 2018

discounts (number of *colors/styles*)



Source: Retviews, Roland Berger

Big Data is your friend

Help, we believe, comes from Big Data. The massive datasets on the behavior of customers and competitors within the fashion industry available today thanks to modern technology can provide players with invaluable insights into the fast-evolving fashion market. Particularly for mid-sized offline brands that lack market dominance and significant digital knowhow, this goldmine of data presents a huge opportunity for learning and adapting to the changing realities of the market.

Big Data-driven analytics are a powerful tool for all brands. With this in mind, Roland Berger has formed a partnership with fashion analytics company Retviews, winner of the Best FashionTech Startup 2019 award. Retviews crawls the Net gathering millions of data points daily from more than 2,000 fashion websites in different countries. The level of detail that can be derived from these datasets opens up unprecedented insights, going far beyond price comparisons and assortment benchmarks. Roland Berger uses this data as a basis for further analysis to derive insights and adjust organizational structures and processes to boost sales and margins. The discussion below, for example, includes examples based on data gathered on vertical players in Germany, France and Italy over the course of 2018.

Many applications

Big Data has applications in a wide range of areas within the fashion industry. Take **lifecycle management**, for example. In today's fashion world, newness and timing are key. Successful brands bring in merchandise according to customer needs and seasonal rhythms and attract customers with constant highlights. This gives them an uneven pattern of arrivals during the year. For example, Zara and Mango have a high share of new-ins across all categories in the early months of the year, with Zara again increasing its new-in ratio in August and September. These new assortments attract customers and support the image of the company as fast and creative. H&M, by contrast, shows relatively constant levels of new-ins throughout the year and a much lower proportion of new-ins to total merchandise *(see p. 8)*.

The arrival of new merchandise is mirrored by the discounting policy. H&M has a fairly constant level of discounted merchandise, while Mango and Zara appear to use promotions far more to cleanse their assortment – as can be seen for blouses and shirts. That said, the typical end-of-season sales in January and during summer are still visible to some degree across all brands *(see p. 6)*.

Big Data combined with algorithms can form the foundation for highly effective lifecycle management by improving the accuracy of merchandise forecasting and optimizing sales and operations planning. This helps fashion retailers start the season with fresh assortments, maintain the full-price share of sales throughout the year and make use of promotions prior to introducing new merchandise. Not only is that good for inventory management, ▶

"Running a customer-centric retail company without using and acting on Big Data is like driving with your eyes shut."

JOHAN MUNCK, SENIOR ADVISOR

it also helps maintain brand image while avoiding detrimental price erosions.

A second key area of application for Big Data is in **inventory planning.** Online data shows that OOS (out of stock) numbers are generally very high for the companies we are focusing on here. To some extent this may be due to brands using e-commerce to sell end-of-stock items no longer available in stores. But this cannot be the only reason: All players show significant room for improvement in OOS in certain sizes *(see p. 9).*

OOS is a source of great disappointment for customers. It also poses a huge threat in today's retail world, where the next item is just a click away. That gives fashion retailers a major opportunity to differentiate themselves from the competition by offering a high-quality service based on data-driven inventory planning. Retailers need a more integrated system of inventory planning and better visibility with regard to product flow along their supply chains. They also need to understand that e-commerce is a fully valid sales channel, otherwise they will see their brand equity gradually erode.

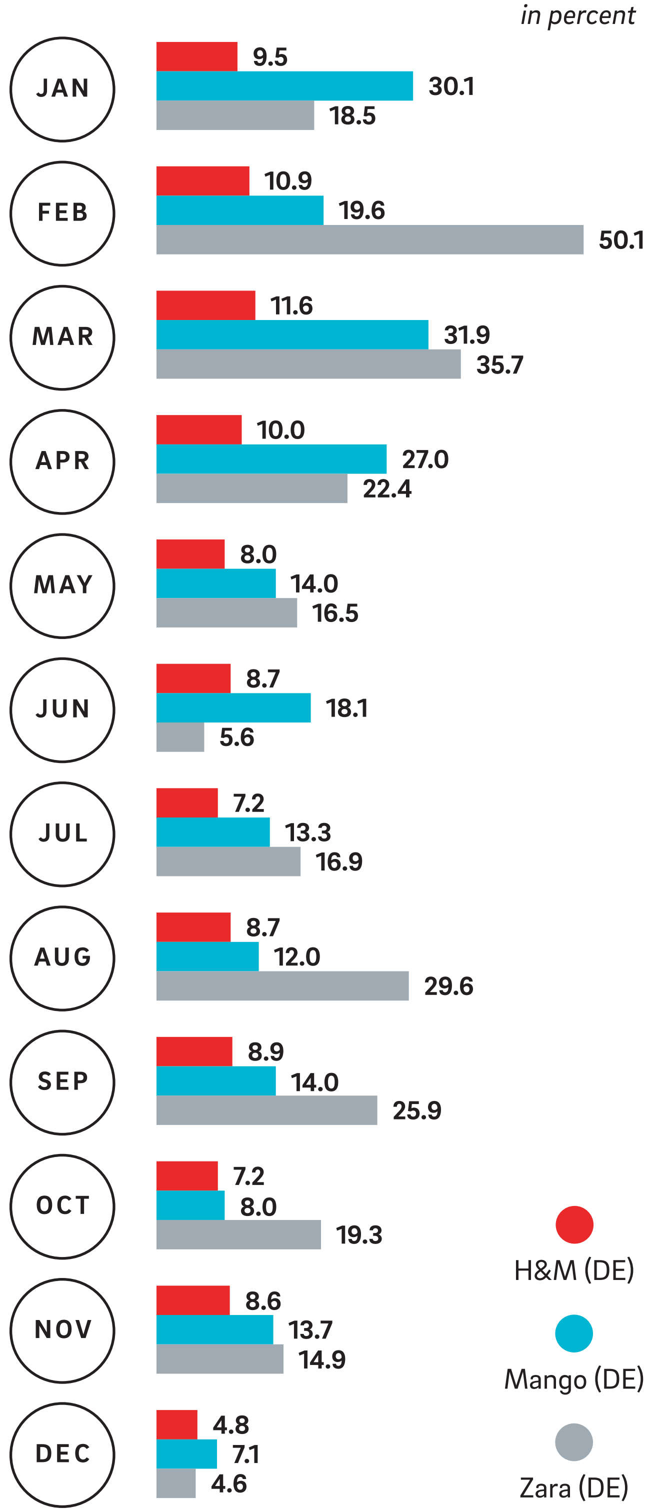
A third area where Big Data can benefit fashion retailing is **pricing.** Driven by competitive trends, the length of time that items are offered at full price appears to be growing ever shorter. The result? A downward price spiral in the fight for market share. Notably, some players drive their business with almost half as many full-price references as their peers *(see p. 10)*.

However, the figures also reveal that while H&M discounts almost two-thirds of its merchandise, it has much lower average discount rates than Mango and Zara. Looking at the data for all e-commerce price reductions including "black discounting," it is clear that Mango and Zara have a much more aggressive markdown strategy during markdown seasons *(see p. 9)*.

Our Big Data-driven analysis suggests that retailers need to identify adequate pricing levels and employ the correct timing to avoid markdowns later on. When discounting to clear the shelves of merchandise, they can use aggressive discounting. But they should do so for a limited period of time only, avoiding the temptation to engage in a discounting race with continuous markdowns as this will be detrimental to both their brand image and their margins.

Keep it fresh

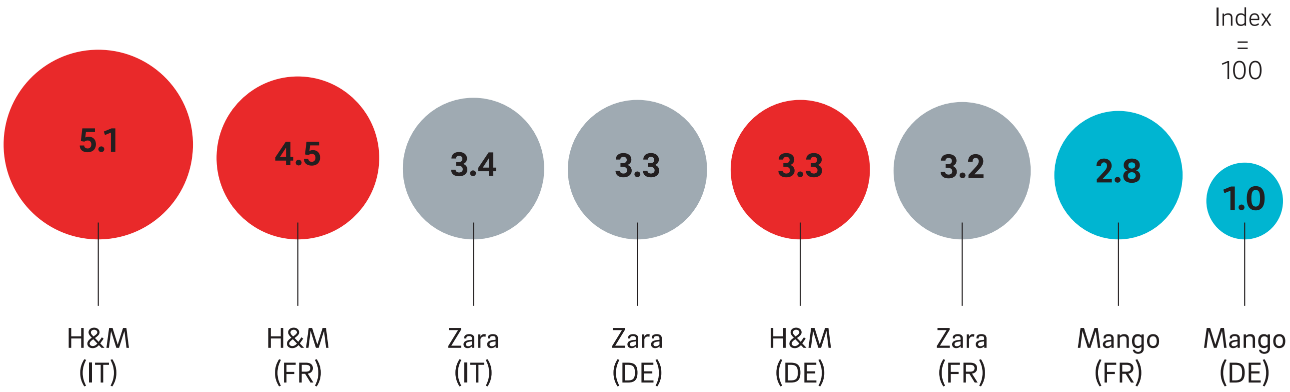
Share of new-ins to total references, 2018 month by month (Germany)



Room for improvement in out of stock

OOS levels for knitwear and cardigans, 2018

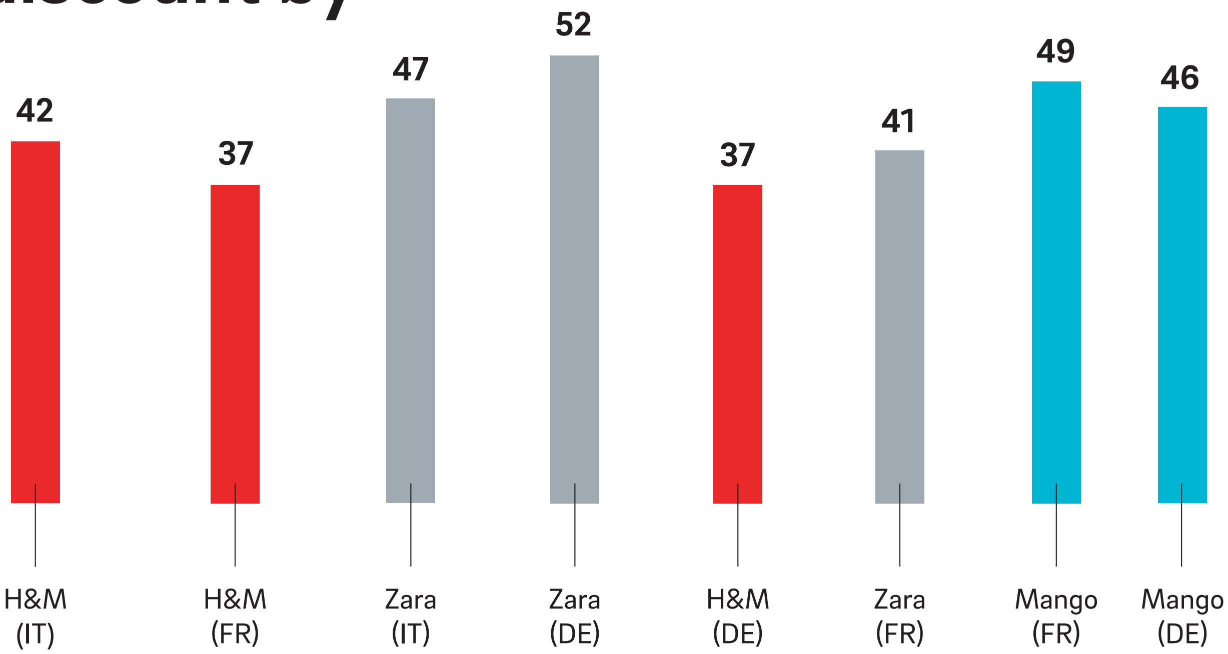
Comparison out-of-stock levels among players



How much to discount by

Average discount rate (%) for jackets, 2018

in percent

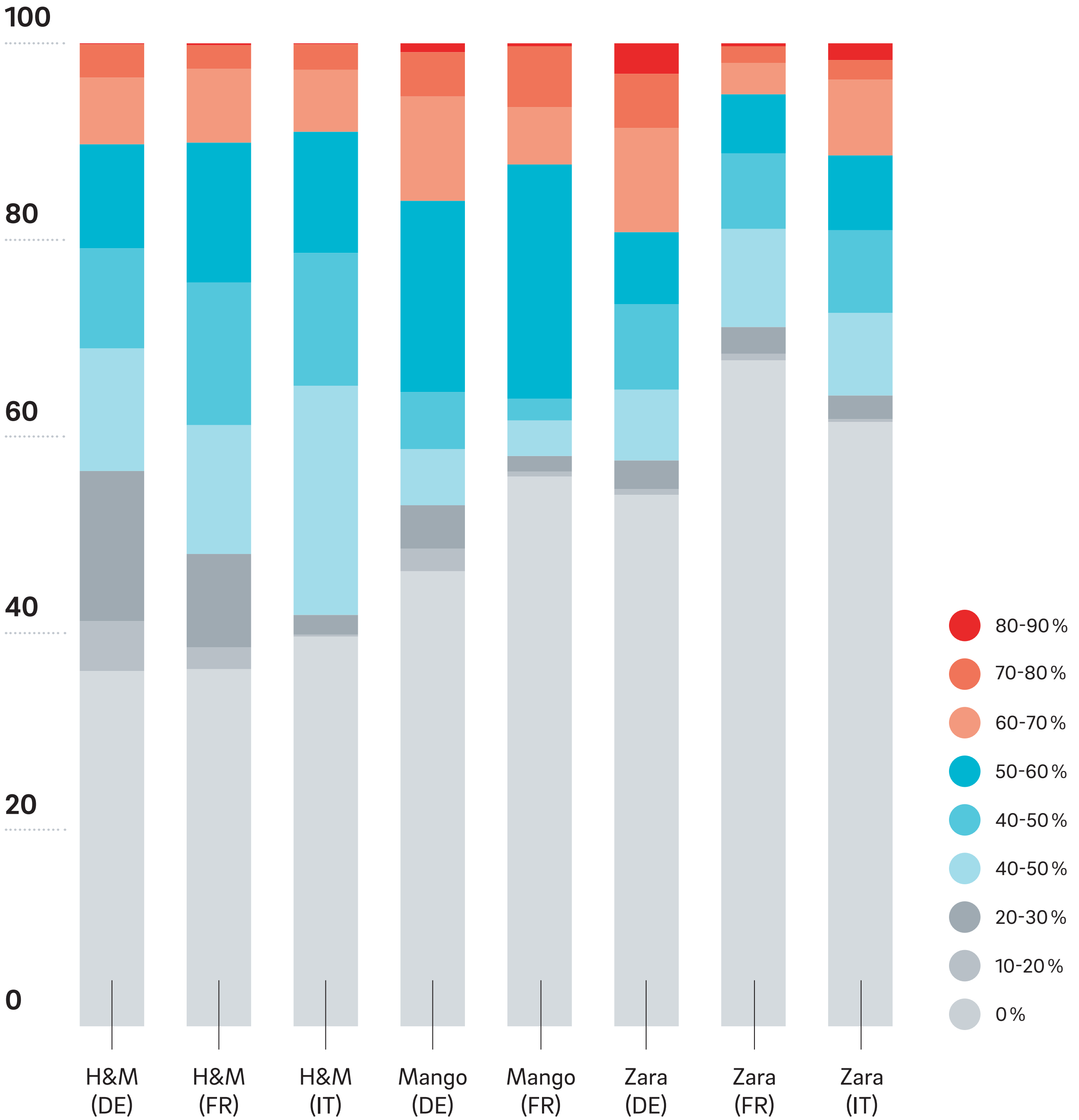


Source: Retviews, Roland Berger

What share of stock to discount

Discount bins (% of stock keeping units) for all categories, 2018

discount bins (% of colors/styles)



Source: Retviews, Roland Berger

From words to deeds

To survive the pressure from vertically integrated retailers on one side and digitally-powered online players on the other, especially traditional mid-sized offline brands need to develop a deep understanding of ongoing market dynamics. As discussed above, we recommend that companies make friends with Big Data – the key to understanding customers and competitors on a continuous, fact-driven, real-time basis.

Too small to cope with the data complexity alone? A good strategy is to build alliances with others in the industry, sharing technology and cooperating in order to achieve the necessary scale. If it is to be useful, Big Data needs to be carefully examined and interpreted first as well as overcome old-style industry benchmarks. Combining technical knowhow and industry expertise is key here.

Transform your business

Big Data, properly analyzed and understood, can transform the way you manage your merchandise. It can bring you closer to your customers and help you avoid markdowns. Companies should consider pursuing an integrated omnichannel approach with merchandise planning and allocation built on the foundation of a good tech stack. We also recommend employing a system of dynamic supplier management, as discussed in our recent study "Dynamic supplier management: A template for the fashion and lifestyle industry," because it's all linked together.

It doesn't stop with mastering Big Data, of course. The challenging dynamics of the fashion industry require companies to make improvements in many areas, from supply chain optimization and sourcing to digitalization and the in-store customer experience. If it wasn't evident earlier, the industry development figures for 2018 and Q1/2019 now make it crystal clear that cost-cutting needs to be back on the agenda to help create efficient business structures with lower overheads.

A wide range of challenges are keeping fashion companies on their toes. Pressures are changing all the time. But one thing is certain: Fashion companies need to harness the power of data analytics or they risk being squeezed out of existence by the vertical and digital players bearing down on them from both sides.

"In the course of the last two years, data analytics has become normal practice at best-in-class fashion retailers. These players increase assortment attractiveness by spotting market opportunities and improve their margins through data-driven pricing and discounts."

LOÏC WINCKELMANS, RETVIEWS

Roland Berger, founded in 1967, is the only leading global consultancy with German heritage and of European origin. With 2,400 employees working in 34 countries, we have successful operations in all major international markets. Our services cover the entire range of management consulting from strategic advice to successful implementation: new leadership and business models, innovative processes and services, M&A, private equity and restructuring, and management support on large infrastructure projects. Our firm is owned solely by a group of 230 Partners. We share the conviction that the firm's independence provides the basis for unbiased advice to our clients.

Retviews is a data company helping fashion brands monitor their competitors' activity on the market. It delivers strategic insights on any brand, making it possible for companies to market the right products at the right price. Ever-changing trends and increased online competition mean that fashion brands can no longer rely solely on intuition. Modern retailing needs an analytical tool capable of delivering insights into a large number of brands, products and countries. Retviews leverages the power of technology, processing millions of pieces of fashion data into dashboards that are accessible anytime via a user-friendly interface.

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