

# ANALYSIS

## The new forces in world retail

In the first of our series profiling the global retail giants, Grace Bowden explores JD.com, the Chinese e-tailer with 292 million customers, £42bn turnover and the UK in its sights

**W**hat's your room number?" a JD.com PR woman asks me, while tapping away on her phone. We are in a car driving through Beijing, at the beginning of a day that will be spent touring some of the city's bricks-and-mortar stores and speaking to a handful of the Chinese e-tailer's executives.

"347," I say.

"Okay, these will be delivered by the time we get back," she replies, giving her screen a final tap before slipping it back in her handbag.

I'm not sure what she's ordered but I've no doubt she's right. While delivering a random product to a customer's hotel room in a matter of hours would be a tall order for many retailers, it's one that Chinese retail titan JD.com takes in its stride.

The business has not been on the radar of Western retailers for very long, but it has been quietly gaining steam in China since Richard Liu founded it in 1998 after spotting a gap in the electricals market for stores selling goods that were not knock-offs (a problem rife in China).

Liu developed the business with the guiding principle of prioritising quality over price for customers, and as a result JD.com buys, stores and fulfils orders for all the stock it offers shoppers directly, setting it apart from marketplace rival Alibaba.

While this fundamental principle to ensure product quality and providence holds true to this day, JD.com is otherwise unrecognisable from its humble origins.

Gone are its original electricals stores, which it opted out of in 2004 following the SARS epidemic, which led anxious shoppers to go online rather than risk exposure to the virus in stores. In their place is a world-class ecommerce operation, which holds a whopping 33% of the Chinese ecommerce market, according to the

China Ecommerce Research Centre. The retailer, which counts WeChat owner Tencent and US grocery giant Walmart as shareholders, now has 150,000 employees and reported revenue of \$55.7bn (£42.4bn) in 2017. This made it the third-biggest internet company globally in 2017, behind only Amazon and Google's parent company Alphabet, in terms of turnover.

### Understanding JD.com's strategy

For many, this Chinese e-tailer will be the biggest retail business they've never heard of – so how does JD.com plan to change that?

Its growth plan is multifaceted. First, it is looking to grow its retail business in China and strengthen its position in verticals including food and fashion.

The retailer has a strong foothold in the electricals market, but it has much growth to do in food and fashion, which are two of its fastest-growing product categories. It plans to do this by rapidly expanding its store estate and building its brand partnerships in these areas.

Bringing big international brands on to its platform is key to this. JD.com wants to capitalise on China's rapidly growing middle class, who have deeper pockets and an appetite for international products from sources they can trust.

JD.com's point of difference is that it buys stock directly from third-party brands to sell on to consumers and it has a zero-tolerance policy on counterfeit good across its entire product range – something Alibaba has struggled to crack down on in recent years.

The retailer already sells products from businesses including Iceland, Clarks, Walmart and Dyson, and Liu pledged to Theresa May earlier this year that JD.com would sell £2bn worth of UK goods to Chinese consumers over the next three years.



The JD6.18 festival featured tech-filled pop-up stores across China

Another key prong of its growth plan is to sell its technology and expertise to other retailers. JD.com, which unveiled its retail-as-a-service strategy earlier this year, will look to outsource its prowess in supply chain management, delivery and AI-powered marketing.

The retailer is developing solutions in every futuristic retail technology you can think of, including checkout-free stores, automated warehouses, delivery drones and blockchain. To supercharge these advances, the firm unveiled a £415m strategic partnership with Google in June to "explore the next generation of retail infrastructure solutions".

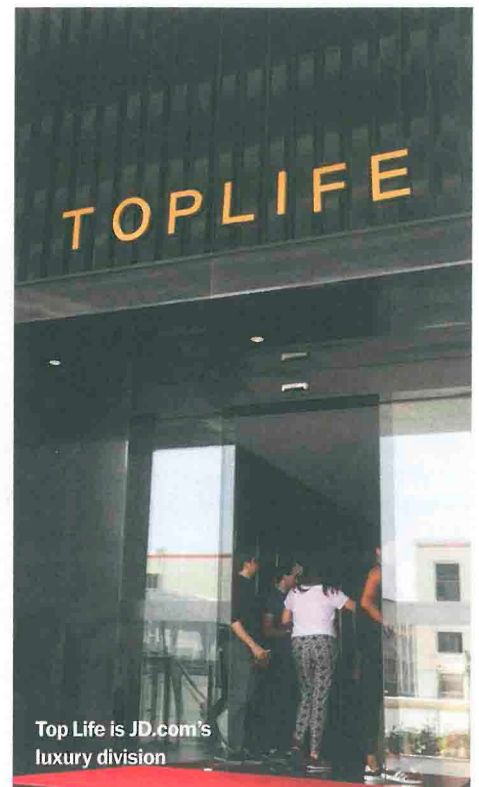
Compared with all that, being greeted by a JD.com delivery of chopsticks and a face mask to keep out air pollution when I get back to my hotel room that afternoon is small-fry.

### Tech provider

JD.com chief technology officer Chen Zhang says the business being first and foremost a retailer will give it an advantage over competitors vying for retail partnerships.

"We're first to test everything that we roll out to external partners, and we'll only open it up to others after it feels mature when we use it," he says.

It is certainly a strategy that has paid off for Amazon with its AWS cloud services platform



## JD.com's version of Amazon Go

JD.com has created an unmanned convenience store, which opened at its Beijing HQ last October.

Similar to the Amazon Go format, these stores – called JD.ID X-Mart – allow shoppers to gain entrance by swiping an access code from their retail app at the door. Shoppers can then browse and leave with products that will automatically be charged to their JD account.

The retailer operates 20 unmanned stores across China. They are equipped with cameras that track shoppers' movements and monitor product selection in order to optimise everything from inventory to product displays.

The stores also leverage technologies including facial recognition, which prevent a shopper from gaining access to the store with an account or smartphone that is not their own.

"These stores offer a tech-enabled retail experience... that effectively work in the same way as an online store," says Roth.

The unmanned c-store is the first of JD.com's store formats to be rolled out overseas. It opened a 270 sq ft branch in the PIK Avenue shopping mall in Jakarta, Indonesia, in August.

Its latest branch has an expanded range, including beauty and fashion products, which means shoppers will be able to try on a pair of jeans, for example, and leave the store wearing them.

● Watch: How JD.ID X-Mart works at [retail-week.com/JD-c-store](http://retail-week.com/JD-c-store)

and Ocado, which has developed its own highly automated warehouse and is now outsourcing the technology to international grocery retailers including Kroger and Sobeys.

It would be a hefty new revenue stream for JD.com if it could build up a roster of retail partners – which Zhang says is a priority.

"Everything is about scale. You invest in the technology and you don't worry about how much profit you'll make, but whether you can get to scale," he says.

However, tech specialist Tofugear's head of research Philip Wiggensraad is not convinced there will be that much appetite for JD.com's retail as a service offer outside of China.

He says: "All their technology is very much geared to the Chinese market with things like WeChat integration, which are so essential there but nobody in the UK is using. If you're not from China or looking to enter China, then why wouldn't you go for a more local technology partner?"

David Roth, chief executive of WPP's The Store in EMEA and Asia, believes for JD.com to be the tech provider of choice for retailers, it needs to do a better job building a narrative. Roth says its biggest rival Alibaba has done a much better job of building its brand outside China.

Western retailers watched agog as Alibaba's Singles' Day extravaganza racked up £19bn in

sales last year, and founder Jack Ma's vision of the tech-enabled store of the future has won the attention of industry commentators worldwide.

Roth says: "Even though [JD.com's] policing of product quality is significantly better, Alibaba is by far the most-known brand, principally because of the showmanship of Jack Ma, who is a tremendous salesman and has a fantastic eye for marketing and promotion."

Nevertheless, he is confident JD.com will be a retail force to be reckoned with in years to come.

### Overseas expansion

JD.com has plans to expand into Thailand and Indonesia, and boss Richard Liu has said he wants to enter the US by the end of 2018.

At World Retail Congress earlier this year, Liu told Retail Week about his ambitions to build a fulfilment centre in the UK to "bring China's local brands to the UK so [shoppers] can enjoy our fast delivery service".

There is a disparity between Liu's lofty ambitions and what JD.com's communications team will confirm though, with a spokesman for the brand saying South East Asian expansion is the immediate priority. He would not prove specifics on other territories.

"Roll the clock forward 10 years and it will be inconceivable JD won't have a massive presence outside of China. The question is the speed

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they do it at, the countries they prioritise and whether they do it organically or by acquisition,” says Roth.

“The strategic dilemma is that the opportunity in China is still massive and will continue to be for years to come, so you can’t afford to take your eye off the ball and risk spreading your resources too thin.”

Limiting expansion to South East Asia seems sensible given this risk, but it is likely JD.com will cast its net wider in the not-too-distant future, and it opened its first European office in Paris at the beginning of the year.

## Building a store-based empire

Like Alibaba and Amazon, JD.com is branching into stores – in a big way. Last year, Liu said JD.com aimed to have 1 million locations under its banner by 2022.

Earlier this year, he announced the audacious ambition to open 1,000 stores a day by the end of 2018 in order to reach this target.

The retailer says it will do so by tying up with franchise partners across China as it aims to cash in on the 6 million independent merchants operating mom-and-pop stores in the vast swathes of land outside of China’s mega-cities.

Franchise partners will continue to own their stores but pay a monthly fee to access specialist training, branding and JD Logistics-supplied products.

Liu says it receives 50,000 applications from potential franchisees every day, primarily from operators in small towns or villages in China’s hinterlands.

As well as the potential to significantly grow JD.com’s offline sales in more rural areas, these stores will double as collection points for local shoppers who have ordered products online, opening up the opportunity to sell products on a daily basis to a previously much less accessible subsection of customers.

The retailer’s PR team was reticent to place an exact number on its current franchise store network, so it is unclear whether it is on target to hit Liu’s lofty ambitions.

JD.com is also opening several new store formats of its own.

The first of these is 7Fresh, a tech-enabled grocery store that the retailer describes as “Whole Foods with a local taste”.

There are two branches open so far and they are both live testing environments that trial new customer-facing and back-end technology in real time.

This is evident at the Beijing branch that we visit, where there is a host of technologies on show, appearing to have varying degrees of success.

Self-service checkouts that allow shoppers to pay with cash, card, WeChat or even facial recognition are being used. Meanwhile, a conveyor belt zips along the ceiling of the store to a courier outside, which will deliver grocery orders to shoppers in a 3km radius less than 30

minutes after they have been ordered online or in-store.

But JD.com’s smart trolleys, designed to drive themselves around for customers to fill up as they shop, are nowhere to be seen.

While the shop is covered in QR codes, only a handful of products actually offer blockchain-enabled information on provenance and nutritional value when scanned.

7Fresh has elements of a traditional upmarket grocery store, including two in-store restaurants inspired by Eastern and Western cuisine, as well as live lobsters sent from a supplier in Canada to the store’s tanks within 24 hours.

But in its current iteration, 7Fresh feels caught between a ‘grocery store of the future’ demo and a premium supermarket. The offer feels like it is trying to woo affluent grocery shoppers looking to fill their basket with the best products available – but the sometimes-lacklustre execution of in-store technology can detract from this upmarket feel rather than add to it.

This muddled vision of what the store is meant to be and who it is intended to serve is also true of JD.com’s experiential pop-ups.

The pop-up store opened to coincide with JD6.18, the retailer’s annual June sales festival coinciding with its anniversary, had a distinctly cluttered feel when we visited, and the customer-facing technology seemed firmly in the test phase.

An AR-enabled smart mirror that allowed customers to test out different lipstick shades gave everyone who used it a distinctly lopsided application, and a mirror that gave product recommendations based on your appearance gave every person who used it the same shopping list (nappies and baby food).

To JD.com’s credit, each of these technologies was being used by crowds of shoppers, and the pop-up stores opened across 30 Chinese cities for JD6.18 registered 43 million visits during this year’s festival.

Nevertheless, one wonders whether the in-store technology would offer long-term value for shoppers in its current iterations. But they do offer a rich testing ground for the technology that will power JD.com’s business and bring prospective retail partners onboard.

There are elements of JD.com’s bricks-and-mortar experience that feel genuinely inspired and cutting-edge – and others that miss the mark. These stores are the newest addition to JD.com’s strategy and it shows – but that doesn’t mean that

Western retailers shouldn’t sit up and pay attention.

## Fulfilment

A significant aspect of JD.com that makes it stand out from its peers is its ownership of its entire supply chain.

The business began developing its nationwide logistics network in 2007 after finding that 70% of customer complaints were about its delivery service, carried out



**JD.com has 40 drones delivering to customers**

by third-party suppliers at the time. The business rolled out its in-house delivery proposition the following year and it now offers nationwide coverage.

Of the retailer’s 150,000 employees, around half work across its logistics network from more than 500 warehouses to delivery stations – where orders are collated, either for last-mile delivery or customer collection – and final-mile couriers, who are all full-time employees of the business.

JD.com’s delivery drivers are given an area where they fulfil orders from one of the delivery stations. There are 7,000 stations across China. This means drivers are able to build up a rapport and know the names of repeat customers living in the area, and vice versa.

This structure gives JD.com a relatively unique opportunity to use the final mile to increase customer engagement and loyalty, when it is at times derided for its lack of personal service.

In a documentary created by Chinese artist Cao Fei about JD.com, there is a clip of a customer recognising her local delivery driver and running over to espouse his virtues to the camera – a level of advocacy most brands would kill for.

Behind the human touch of JD.com’s final mile is deeply innovative technology. The

**33%**

JD.com's share of the Chinese ecommerce market

For the latest international retail news,  
analysis, data and videos  
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## Drone delivery

Retailers may be cynical about the potential of airborne drones to revolutionise the last mile in the UK, but in a country as expansive as China, the potential is huge.

JD.com has pounced on this opportunity and was the first retailer in the world to gain aerial rights to test drone delivery, and since then its drone programme has ramped up.

It deployed its first commercial drone in March 2016. To date, 300,000 journeys have been completed with 40 drones now in operation.

The retailer has developed seven different drone models to cater to different types of delivery. Another is being developed to carry up to five tonnes, so it can transport goods between warehouses and drive delivery efficiencies.

There are 200 JD.com employees working on its drone development programme, with all of the machines developed in-house. The retailer says its drone delivery scheme in remote areas such as the rural provinces of Jiangsu and Xi'an have cut fulfilment costs by 70%.

The retailer is rapidly expanding its drone delivery scheme, with 100 new routes planned by the end of the year.

The calibre of its luxury warehouse means 90% of the brands that sell on Top Life choose to store their products in this hi-tech building – and all of them choose to use its ‘white glove’ delivery service. This involves orders being delivered to shoppers by a degree-educated driver wearing a suit and, as the name would suggest, white gloves.

JD.com’s president of international fashion Xia Ding, who leads the Top Life division, believes the level of uptake for its luxury online and fulfilment services is motivated by the fact that “luxury brands are good at branding and flagship stores but technology and ecommerce is not their area of expertise at home, never mind in China”.

Top Life’s delivery service has become a point of difference for shoppers – 60% of which request that orders be delivered at a specific time rather than within 24 hours.

“[Shoppers] want this handsome guy to turn up, so they can show their wife that they bought this expensive bag for her. Speed is not top [priority] but service and the way products are presented – that’s what really matters,” says Ding.

What makes JD.com’s fulfilment offer so compelling is how it has used and developed its own technology to drive huge efficiencies while still prioritising a human connection with the shopper.

The ability to deliver an order in as little as six hours in a country as vast as China is highly impressive – to do that using a driver who knows your name without having to look at the package they are holding is extraordinary. **rw**

## In a documentary about JD.com, there is a clip of a customer recognising her local delivery driver and running over to espouse his virtues to the camera

retailer has 15 warehouses that are highly automated, with a portion of one of its warehouses in Shanghai entirely automated save for four members of staff. Robots process orders at a rate of up to 200,000 a day.

JD.com’s director of logistics Bao Yan said its fully automated warehouse is able to process orders at four times the speed of its partially automated equivalent and can store up to 10 times more inventory.

As a result, the Chinese retailer has ambitions to expand its automation capabilities and opened a robotics lab in 2016 and a robotics research centre in Silicon Valley specifically to drive innovations in this area.

The retailer has 200 researchers at the lab and 10,000 engineers working across its robotics

operation overall. To date, this team has developed a variety of robotic arms that are able to move and handle products, including a suction cup-enabled arm that can pick and pack up to 2,000 items an hour and arms with two, three and five digits with adaptable grip levels.

Even the vast majority of JD.com’s 500 warehouses that are not highly automated are still impressive for their sheer scale.

One warehouse on the outskirts of Shanghai is over one million sq ft and is a 45-minute walk from one end to the other.

Although this warehouse has hundreds of employees, the methods involved in processing orders are still highly technical.

Where products are located is determined by AI, which puts products that are regularly ordered in the same section of the warehouse – such as red wine being stored in close proximity to prime cuts of steak.

### A warehouse for luxury

JD.com’s recently launched luxury division, Top Life, also has a dedicated warehouse, which has a host of features to ensure the quality and security of its products, including temperature and humidity control as well as facial-recognition technology for both employees and visitors.

