HEMA: NEW RETAIL COMES TO GROCERY

Online grocery shopping was the fastest growing e-commerce sector in many countries. In 2017, the annual growth of global e-commerce grocery shopping reached 30%, with 52% growth in China, 41% in South Korea, 8% in the UK and 7% in France.[1]

However, online grocery was the least penetrated e-commerce sector. In 2018, the largest digital grocery sales were in South Korea, Japan and the UK with 8.3%, 7.1% and 6% of total digital sales, respectively.[2] Part of the reason for this low penetration rate was the unique challenge of perishability and timeliness in online grocery sales, which caused a considerable amount of complexity and pressure in the supply chain. For example, products had to be chilled at different temperatures, and they were often not very stackable. Moreover, meeting customers' requirements for fast delivery at low prices further diminished the already razor-thin margin, which meant it was difficult to achieve profitability in the online grocery business.[3] Despite this, many considered it the next frontier of e-commerce.[4]

There were two basic distribution models for online groceries: In the centralized distribution model, online orders were fulfilled from dedicated distribution centers; in the store fulfillment model, existing stores served as localized miniature fulfillment centers for picking and shipping online orders. The fundamental challenge in both approaches was to keep the logistics costs of online orders sufficiently low as to both entice consumers to shop online and maintain profitability.

As a result of compromises that had to be made with both models, mergers and acquisitions were common – retailers hoped to make up for the shortcomings in their distribution strategies. For example, Marks & Spencer acquired a 50% stake in Ocado to expand its online food delivery capabilities,[5] and Amazon paid a hefty price for Whole Foods in order to build its physical presence.[6]

Against this backdrop, Alibaba, China's biggest online company and one of the world's largest retailers,[7] set up Hema Xiansheng supermarket in 2015 in an attempt to integrate offline and online in what Alibaba described as "New Retail." Four years on, Hema's "hybrid" distribution strategy seemed to be working. The company had 171 stores in 22 cities and 20 million annual active users. Its revenues had increased by 300%, with 61% online sales, up from 51% in 2018.[8] But was this model sustainable?

Challenges in Fulfilling Online Grocery Sales

Despite all the attempts to revolutionize online grocery, the two basic distribution models remained almost unmodified: the centralized distribution model for exclusively online grocers such as UK online grocer Ocado, and the store fulfillment model for traditional grocery conglomerates like UK brick-and-mortar grocer Tesco (*refer to **Exhibit 1***).

In the centralized distribution, or hub-and-spoke model, online orders were fulfilled from dedicated distribution centers. In the store fulfillment model, the existing store footprint served as localized miniature fulfillment centers for picking and shipping online orders.

In both approaches, the fundamental challenge was to keep the logistics costs of online orders sufficiently low as to both entice consumers to shop online and maintain profitability. Most grocers were barely profitable, so it would be even more challenging to deliver groceries to customers cheaply and quickly,[9] while managing the constraints of product fragility and temperature. With thin margins, the grocery business model relied on volume and economies of scale.[10] With online grocery orders, however, each order had to be fulfilled individually. This meant that each delivery translated into additional cost for retailers, and economies of scale could hardly be exploited.[11]

To attain some degree of economy of scale, speed of delivery was often sacrificed in both distribution models. Most retailers delivered according to reserved time slots, which pooled orders together to better utilize the refrigerated delivery van. In addition to longer waiting time and less flexible delivery, order pooling also affected product freshness. Overall, this triggered a vicious cycle, especially with the centralized distribution model: Order pooling decreased customer satisfaction and the number of orders, which in turn resulted in higher delivery cost due to the lower density of orders.

Core Challenges of the Centralized Distribution Model

Centralized distribution was more efficient in terms of order picking, achieved by using highly automated warehouses. For example, Ocado's warehouse in Andover aimed to process 3.5 million items per week.[12] Furthermore, the elimination of physical store removed the intermediate step between customers and retailers, which meant lower costs and fresher products. Coupled with economies of scale from large order pooling, centralized distribution could potentially achieve great cost savings, as demonstrated by Ocado's positive profit margin in 2013 and 2016.[13]

However, the cost savings came with the compromise of longer delivery routes, which resulted in less flexible and slower delivery for customers. Furthermore, automation equipment in the warehouse required large capital investment and represented significant supply chain risk. For example, Ocado's Andover warehouse was badly damaged by a fire in 2019, affecting more than 10% of Ocado's total volume and resulting in 400 job cuts.[14]

In addition, the lack of a physical presence meant this model was also inherently harder for consumers to adopt, since most consumers still preferred to physically see and choose their groceries.[15][16][17] This barrier of trust presented an enormous challenge in acquiring and building a viable base of repeat customers, which eroded the costs saved by efficient warehouses. The low order density resulted in longer delivery distance and hence higher transportation costs.

Core Challenges of the Store Fulfillment Model

The store fulfillment model was superior in terms of customer experience. It had the advantages of faster and more flexible delivery by utilizing the existing expansive and deep footprint of store networks. Moreover, compared with centralized distribution, this model, with its physical presence, had the intrinsic ability to foster trust and acquire customers, since customers had more confidence in a brand when they could see the products for themselves. With the stores serving as gateways, there was potential for in-store customers to be converted to online in the long run with high quality of service. Furthermore, using existing stores for online delivery allowed retailers to amortize the fixed costs of operating brick-and-mortar stores. This could also mean a more flexible network because the need for capital investment for expansion was lower.

However, one important downside of the store fulfillment model was the manual order preparation process – not only was it inefficient but it also had a physical upper limit due to the inevitable interference with regular customers and limited available shelf space. Furthermore, products were generally arranged to maximize the experience and basket of physical shoppers, but this was not optimized for manual order picking. It was also notoriously difficult to ascertain accurate store inventories and on-shelf availability (OSA), creating a high risk of promoting products online that were not actually available in-store.

Overview of Alibaba and Hema

Alibaba was China's biggest online company and one of the largest retailers in the world.[18] Its vision was slightly different from that of its American counterpart Amazon. Alibaba's mission was "to make it easy to do business anywhere." Until recently, Alibaba had mainly focused on building platforms that linked consumers with sellers, especially small and medium-sized enterprises (SMEs).[19]

Alibaba's New Retail and Hema

In 2016 Alibaba introduced its New Retail strategy, which was essentially the holistic integration of online and offline retail, driven by digital technologies such as data analytics and artificial intelligence. As Jack Ma, Alibaba's founder, noted:

> "The era of e-commerce will end soon. In the next decade or so, there will be no such thing as e-commerce; there will only be New Retail."[20]

As a result, Alibaba started engaging in a series of efforts to acquire offline retailers, including China's largest electronics retailer Suning (which owned 80% of Carrefour China), [21] hypermarket chain RT-Mart[22] and small operator Intime Group.[23] With more than $10 billion invested in offline retail since 2016,[24] Alibaba had a dominant position in China's retail landscape, directly or indirectly owning multiple entities that spanned every product sector.

Apart from the offline retailers Alibaba owned, Hema was created as a completely new entity to be the pioneer of New Retail. In other words, Hema was created as the testing ground for aggressively innovative concepts. Hema was the very first attempt at Alibaba's strategic plan for digital transformation of offline retail (*refer to **Exhibit 2***).

Overview of Hema Xiansheng

Hema Xiansheng (official English name: Freshippo) was established in late 2015 as Alibaba's flagship investment in its New Retail strategy. Hema Xiansheng, phonetically translated to "Mr Hippo," but the literal translation was "packaged fresh and raw." This revealed Hema's primary focus: fresh food products, especially fresh meat and seafood. Currently, these product categories were mostly bought through wet markets in China (73%), with only 22% bought through supermarkets and 3% through e-commerce channels.[25] This was because Chinese consumers preferred the practice of price bargaining and deemed products from wet markets to be "straight from the farm" fresh.[26] Furthermore, another reason for choosing fast-moving consumer goods (FMCG) as the first New Retail project was the "consumption upgrade" in China, whereby consumption of premium products skyrocketed with rising disposable income.[27]

The first Hema store opened in January 2016, with minimal marketing and almost zero media presence. According to Hema's general manager, the company's initial expansion was extremely careful, even "stealthy."[28] This was because Hema was the "pathfinder of New Retail"; in other words, there was a lot of trial and error of the overall concept. Several years on, many people still questioned Hema's model.[29] Nonetheless, Hema gained traction quickly due to its visibly innovative concepts. According to China Chain Store & Franchise Association, Hema ranked 18th in the 2018 ranking of FMCG (Supermarket/Convenience Store) in China (*refer to Exhibit 3*). In terms of annual revenue growth, Hema topped the list with 300% growth, far ahead of brands such as Walmart (0.3%) or Metro (4.9%).[30] Notably, Alibaba also owned a major stake in RT-Mart, a hypermarket chain with the second largest revenue in China.

The Alibaba Investor Day presentation 2019 highlighted a few key figures:[31]

- **171** Hema stores covering **22** cities in China

- **20 million** annual active users, 60% annual user retention rate and **RMB 3,000** average annual spending per top consumer (consumers who contributed around 80% of Hema's revenue)

- **61%** online sales, up from 51% in 2018

- **13%** same store sales growth compared with 2018

- **30%** decrease in operating cost compared with 2018

- **483** direct procurement agricultural product sources, with 329 contract sources and 154 licensed sources

- **33** room temperature and multi-function warehouses, **11** central kitchens and processing centers and **4** seafood temporary feeding facilities (*refer to Exhibit 4*)

- Approximately **3,000 to 6,000 SKUs** (stock-keeping units) per store.

Hema's Strategy

As a pioneer in reforming online grocery retail, Hema targeted the affluent population in China. Hema described its typical consumer profile as women aged 25 to 42 with annual household

income of RMB 270,000 (~US$38,000).[32] More detailed customer portraits included young adventurers, affluent middle class and exquisite "SoHoer" (*refer to Exhibit 5*).

Moreover, Hema placed great emphasis on high-frequency purchases, namely fresh food products, as the entry point into cultivating the habit of grocery shopping online. This was because Chinese consumers were especially sensitive to the quality of fresh products, which would induce a halo effect that could improve the overall perception of Hema and result in more customer traffic.[33]

Hema's Offline-to-Online Conversion: Get Customers through the Door

One fundamental challenge for purely online grocery platforms was cultivating the habit of shopping for groceries online and building a viable base of repeat customers. Similar to traditional grocers like Tesco, Hema's physical stores primarily aimed to attract customers into the store to cultivate trust, possibly converting them to online sales in the long run (*refer to Exhibit 6*). However, Hema went one step further by capitalizing on viral marketing.

Each Hema store featured a large space for live seafood, especially eye-catching products such as Alaskan King Crab. Seafood consumption was proliferating as a result of rising income in China: the affluent population incorporated more premium seafood into their staple diet, and the less wealthy coveted seafood on special occasions, such as Chinese New Year.[34] Consequently, a massive amount of viral content on social media sites such as TikTok and WeChat was created by early visitors to Hema, and most of the content was about the striking seafood products.

Furthermore, for a small processing fee (~US$3) Hema offered a cooking service in the restaurant area for products bought in-store (especially for seafood products, as seen in the integrated restaurant-seafood area in *Figure 1*). Some stores even had robot-enabled restaurant areas, where robots delivered the dishes instead of waiters. This allowed customers to personally pick live seafood that could be cooked and consumed immediately, which gave consumers the opportunity to sample the products.
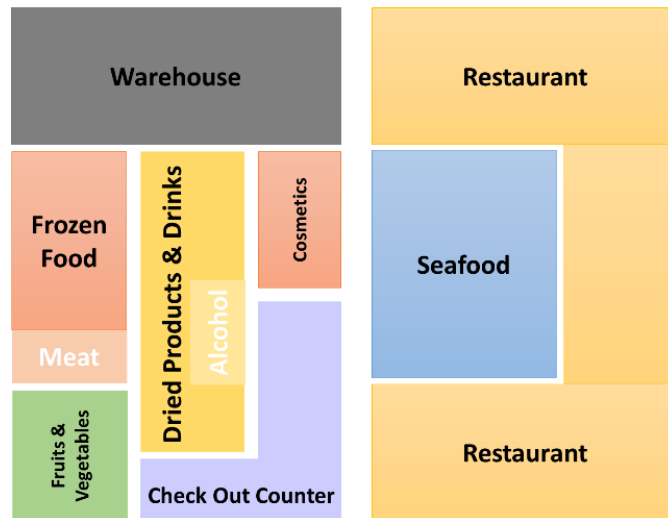
Figure 1: Schematic layout of Hema's Yizhuang branch in Beijing with an area of 9,000m^2 (not to scale)

Source: Created by author

This viral phenomenon even made Hema shops into tourist attractions that spun off social media figures and travel blogs, which shared content like "Travel Tips for Hema," "What to Eat in Hema with RMB 100" and "Cost Saving Tips for Hema," especially for travelers whose home city did not yet have Hema.

The ideal scenario for Hema was for a customer to be lured into the store by the fancy displays of live seafood and eccentric robots running around the restaurant delivering food. The customer then picked out a few products, especially those that they were concerned about buying online, and had them prepared at the restaurant. They tried out the food, felt satisfied with the quality, and ordered more either right away or when they got home.

Hema's offline-to-online conversion strategy was rather successful, with more than double the number of online transactions as offline by July 2018 (*refer to **Exhibit 7***). Hema stores therefore functioned as more than just supermarkets; they served as gateways to actively engage and attract customers and potentially build a viable long-term base of online grocery shoppers.

Hema's Distribution: The Relentless Pursuit of Speed

The CEO of Hema once stated that if Hema was to keep only one competitive advantage, it would be its 30-minute delivery time.[35] Although the fast delivery service attracted customers, it also saved costs during last-mile delivery by eliminating the need for refrigerated vans. The rapid delivery speed meant that fresh products could be kept sufficiently chilled using only insulated boxes and ice bags, which could be recycled for subsequent deliveries.

However, the offer of free 30-minute delivery with no minimum order had two restrictions. It applied only for areas within a 3-km radius of the nearest Hema store, and only for fresh products; other items such as cosmetics were delivered the following day. Nonetheless, Hema's distribution was still eye-opening, especially with the introduction of night delivery of health and medicine products with the same 30-minute delivery time (only in Beijing and Shanghai to date).[36]

Hema's overhead conveyor system
Source: see references.

Hema's conveyor docking system

Source: see references

To achieve its promise of delivery within 30 minutes, Hema targeted order preparation time of under 10 minutes, which left 20 minutes to deliver the order.[37] At the heart of this fast speed was Hema's automatic conveyor system running along the ceiling of every store. Once an online order was placed, the computer would find the optimal routes for collecting goods from different product categories (such as meat, vegetables and dried food). This would trigger bags of different colors to be transported by the conveyor to the respective areas of the store.

Order-picking staff with a portable terminal displaying the corresponding order information would be waiting when a bag reached the docking station. They would take the bag, find the product and scan it with a portable reader. The completed bag would then be loaded onto the dock and transported to the warehouse to be combined with other bags forming the final package for delivery. The target order preparation time was 3 minutes; order combining took another 3 minutes. An error in any of the steps would trigger an alarm that prompted staff to intervene.

By integrating overhead conveyor systems into the physical stores, Hema essentially married the store fulfillment and centralized distribution models by making the stores double as distribution centers. A few key benefits of this system were:

- Utilization of overhead space to minimize interference with in-store customers

- Automatic and optimized allocation of tasks for the most efficient process flow

- Only using manual labor at the last step of picking to reduce human error

- Concurrent order preparations distributed to staff in different areas of the store

- Order picking staff were specialized in one product area, ensuring fast retrieval of products.

Hema's Integrated Information System: Data-Driven Cost Saving

As an internet company, Hema was designed around data acquisition and data analytics. It initially obliged customers to pay using the Hema app by only providing self-check-out counters that integrated Alipay as the sole payment method. But this sparked intense controversy because

it is illegal to reject cash in China. Hema gave in to the pressure and created cash counters,[38] but in many stores, they are under the guise of "customer service counters."

Hema's intention is clear: Requiring customers to check out using the Hema app translated into an enormous amount of data, which was used in a number of ways:

- **Highly personalized product recommendations and marketing**: Drawing on Alibaba's massive e-commerce platform experience, the Hema app personalized recommendations in a similar way to Amazon.

- **Adjustment of available products**: Hema collected data from "search without results" and used it to introduce or de-list products.

- **Inventory and shelf space optimization of individual stores**: Together with Hema's digital price tags, the shelf space and inventory were flexible and hence dynamically optimized with the consumer data of each store.

The backbone for handling such massive amounts of data was Hema's information system, which integrated systems for warehouse management, delivery dispatch, enterprise resource planning, accounting and point-of-sale, as well as Alipay and the Hema app. According to Hema, this system was highly complex and took nine months to develop.[39] It also connected to Alibaba's other e-commerce platforms such as Tmall and Taobao for data sharing and even further data analysis to optimize the entire supply chain.

Hema's Supply Chain Model for Fresh Product: Foster Trust and a "Habit for Hema"

Hema's sourcing strategy

Hema had three procurement sources (*refer to **Exhibit 8***):

- **Global supply**: Mainly for seafood products, transported by air freight within 72 hours, and also for live seafood for temporary storage in tanks in the processing center.

- **National supply**: Mainly for less perishable products such as fruits and frozen meat, transported by a combination of air freight and truck.

- **Local supply**: Mainly for highly perishable products such as vegetables, meat and dairy, harvested/slaughtered early in the morning and delivered directly to the Hema store before noon by truck. Hema largely entrusted suppliers with comprehensive quality assurance; the company performed random quality checks at stores before shelfing.

The foundation of successful customer acquisition and conversion lay in the quality of Hema's fresh products, which it obtained via a direct sourcing strategy with no intermediaries, enabling it to guarantee fresh products at low prices. According to Hema's CEO:

> "Conventional seafood retailers require a gross margin of a least 50% to be profitable because of the large spoilage along the long supply chain. By direct sourcing, we only need a gross margin of 20%. Furthermore, with the increase in demand as a result of the price drop, the turnover rate increases which helps us to maintain the freshness of our seafood products."[40]

One of Hema's most disruptive measures in its sourcing strategy was that it promised zero slotting fees* for all suppliers forever, which was instrumental in building strong relationships

---

* A fee that retailers often charge produce companies or manufacturers to stock their products.

with its suppliers. Traditionally, there was an imbalance in the power relationship between retailers and suppliers in China, where retailers possessed absolute dominance of power (especially in the past), with high slotting fees on-contract and highly unregulated off-contract fees.[41]

Alongside zero slotting fees, Hema forged robust partnerships with many Provincial Departments of Agriculture [42] [43] [44] − government entities responsible for the overall agriculture sector − who had the incentive to increase farmers' benefits. These government bodies were therefore willing to work with Hema to boost the sale of local agricultural products, especially in rural regions with a low level of economic development.

By emphasizing product quality and freshness from the source, Hema echoed the "halo effect" of fresh products to improve the overall perception of Hema. It hoped to drive customer loyalty and foster a long-term habit of shopping for fresh products online at Hema.

Hema's private-label products and full traceability program

Private-label products were traditionally used by retailers to increase profit margin and bargaining power with suppliers. In the UK, for example, Aldi and Lidl had seen rampant expansion with the strategy of lean selection of private-label products. According to a study by Nielsen, however, some retailers were moving private-label products toward premium fresh products, which drove significant growth.[45] Compared with the mature European market with a private-label rate of up to 45%, the average proportion of private-label products in China was only about 3% to 5%.[46] In 2019, more than 10% of Hema's total volume derived from private labels,[47] and the company announced its goal to increase the proportion to more than 50% by 2021.[48]

Apart from driving prices down, Hema was investing heavily in private labels to differentiate itself by providing fresher and more traceable products. In 2018, Hema announced its Full Traceability Program, which allowed customers to trace the source of fresh products to the exact minute.[49] Some of the available information included time of harvest/butchery/milking, temperature of the fridge during transportation, supplier's certification and more (*refer to Exhibit 9*). Hema's private-label brand, Daily Fresh, was the first under this program and featured different color packaging for each day of the week; these products never stayed on the shelf beyond one day. In this way, Hema further fostered trust, especially for consumers who were health conscious and willing to pay a premium.
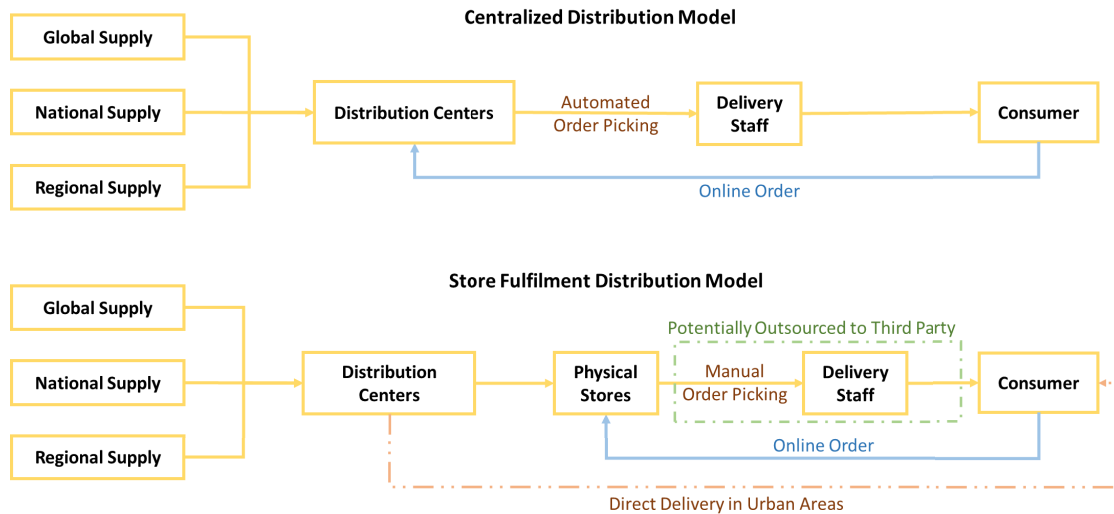
However, despite Hema's claim of "more than 1,700 fully traceable products," closer inspection of the Hema platform revealed that the Full Traceability Program only covered Hema's Daily Fresh products and it was only available in Shanghai. Furthermore, there had been no further reports on Hema's traceability program since it was officially announced, and there was a large amount of incoherent tracing information found on the products under this program.

Discussion Questions

1. How is Hema's model different from other online grocery models?

2. How can Hema turn one-time occasional offline customers into loyal, repeat, predominantly online clients?

3. How well will Hema's current model scale if online growth continues (*Exhibit 7*)?

Exhibit 1
Summary of Basic Online Grocery Distribution Models

Typical Online Grocery Distribution Model

Centralized Distribution Model

Global Supply → National Supply → Regional Supply → Distribution Centers → *Automated Order Picking* → Delivery Staff → Consumer

Online Order

Store Fulfilment Distribution Model

Potentially Outsourced to Third Party

Global Supply → National Supply → Regional Supply → Distribution Centers → Physical Stores → *Manual Order Picking* → Delivery Staff → Consumer

Online Order

Direct Delivery in Urban Areas

Source: Authors

Summary Analysis of Ocado's and Tesco's Distribution Models

	Pros	Cons
Centralized distribution model	Less handling	Capital intensive
	Less damage	Slower delivery
	No store cost	Geographical limitations
	Better inventory accuracy	Less flexible
	Fresher products	Longer routes and higher delivery costs
Store fulfillment model	Faster delivery	Double handling
	Better use of store inventory	Extra shipment
	More flexible delivery times	Interference with shoppers
	Lower delivery cost	Limited by shelf space
	Resilience of network	More damages
	Allows for click-and-collect	Less fresh

Source: Authors

Exhibit 2
Alibaba's Ventures in New Retail

Source: Hou, Yi. "Hema – The Pathfinder of Alibaba's New Retail." *Alibaba Group Investor Day 2018 Presentation, September 17 – 18, 2018.* <https://www.alibabagroup.com/en/ir/presentations/Investor_Day_2018_Hema.pdf> (accessed November 11, 2019).

Exhibit 3
2018 FMCG (Supermarket/Convenience Store) Ranking in China (Selected Brands)

Ranking	Brand	Revenue (RMB 10,000, including tax)	Revenue growth rate (%)	Number of stores	Growth rate of stores (%)
1	CR Vanguard	10,125,379	-2.3%	3,192	0.9%
2	RT-Mart	9,590,000	0.5%	407	6.3%
3	Walmart China	8,048,950	0.3%	441	0%
7	Carrefour China	4,746,375	-4.7%	302	-5.9%
10	Watson	2,341,500	10.3%	3,608	10.3%
14	Metro China	2,130,000	4.9%	94	2.2%
18	Hema Xiansheng	1,400,000	300%	149	396.7%

Source: "2018 FMCG (Supermarket/Convenience Store) Ranking in China." China Chain Store and Franchise Association, May 9, 2019.
http://en.chinashop.cc/public/uploads/20190912/c4a9fb199631e537ef2ccef92c33864e.pdf (accessed November 11, 2019).

Exhibit 4
Locations of Hema's Procurement Sources and Logistic Network
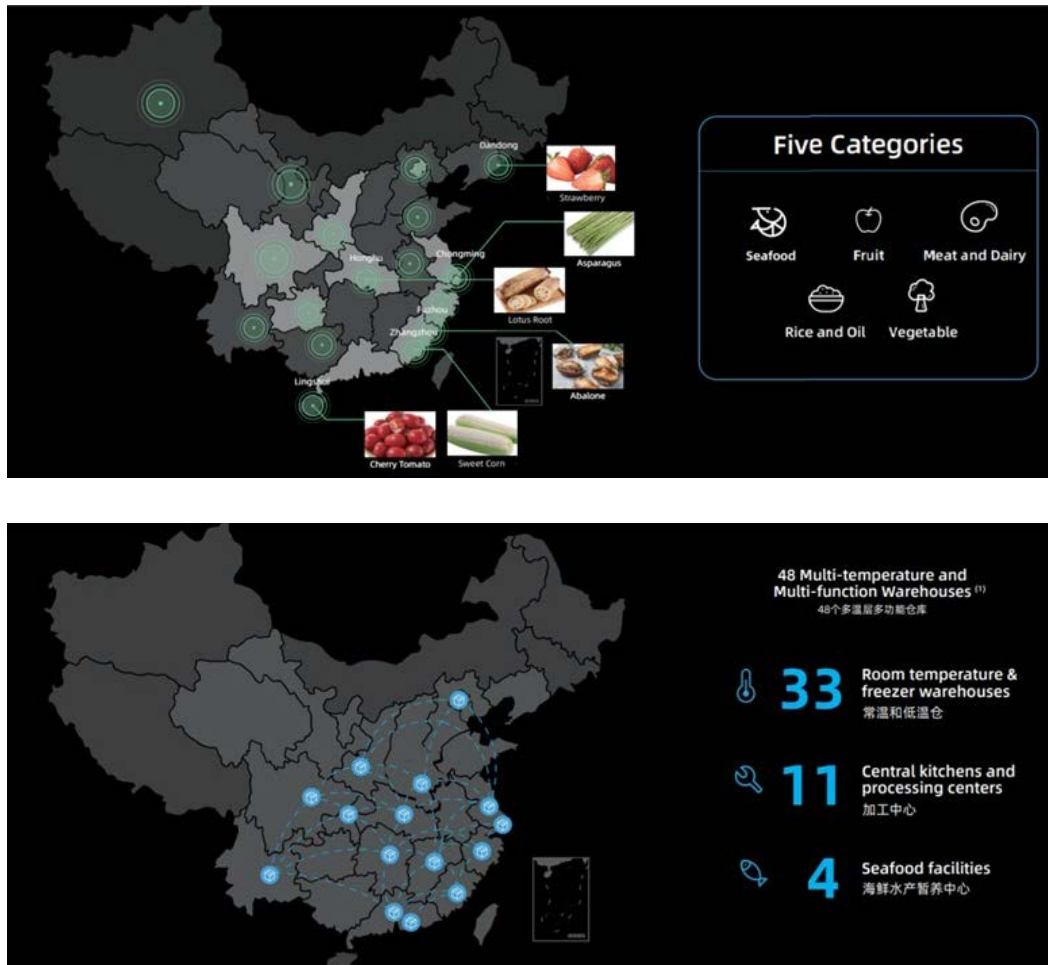
Source: Hou, Yi. "Hema – The Pathfinder of Alibaba's New Retail." *Alibaba Group Investor Day 2018 Presentation, September 17 – 18, 2018.* <https://www.alibabagroup.com/en/ir/presentations/Investor_Day_2018_Hema.pdf> (accessed November 11, 2019).

Exhibit 5
Hema's Target Customer Portraits

Source: Hou, Yi. "Hema – The Pathfinder of Alibaba's New Retail." Alibaba Group Investor Day 2018 Presentation, September 17 – 18, 2018. <https://www.alibabagroup.com/en/ir/presentations/Investor_Day_2018_Hema.pdf> (accessed November 11, 2019)

Exhibit 6
Overview of Hema's Offline-to-Online Conversion Model
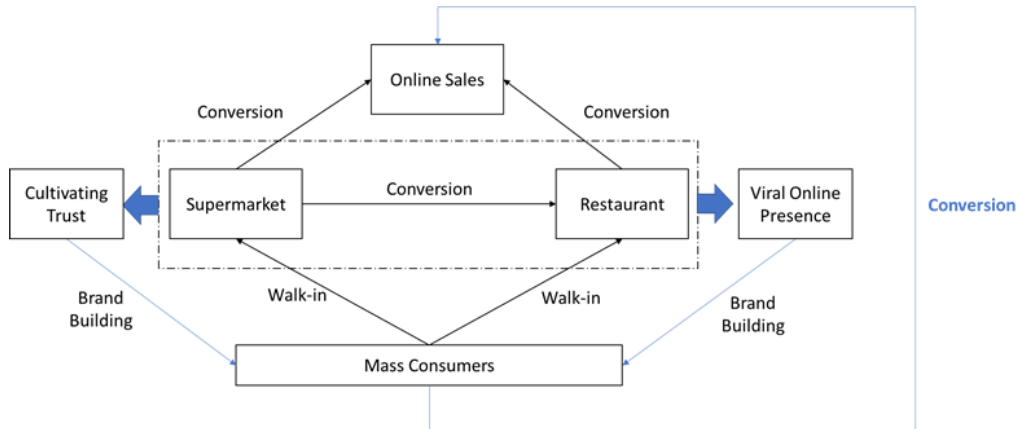
Source: Author

Exhibit 7
Hema's Average Monthly Orders per Store in 2018: Online vs Offline
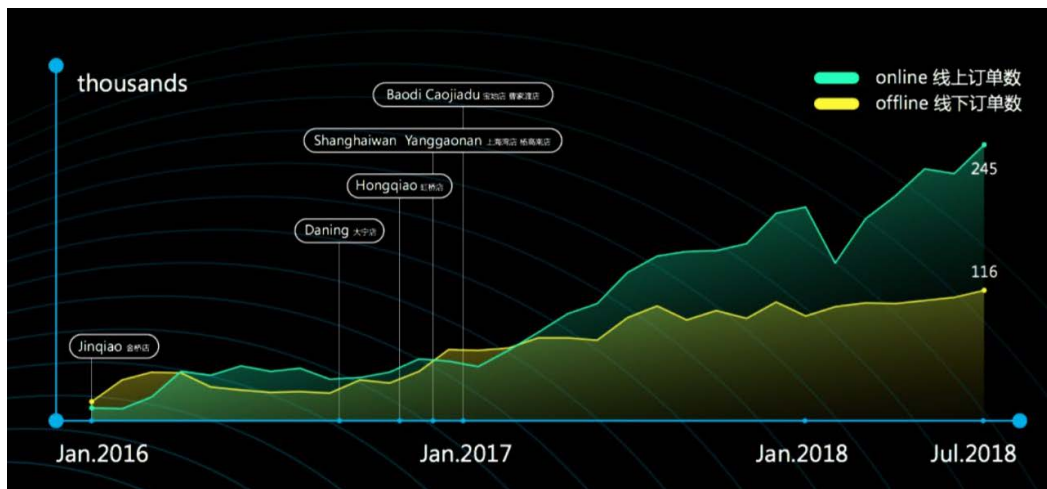
Source: Hou, Yi. "Hema – The Pathfinder of Alibaba's New Retail." *Alibaba Group Investor Day 2018 Presentation, September 17 – 18, 2018.*
<https://www.alibabagroup.com/en/ir/presentations/Investor_Day_2018_Hema.pdf> (accessed November 11, 2019).

Exhibit 8
Hema's Supply Chain Model for Fresh Products
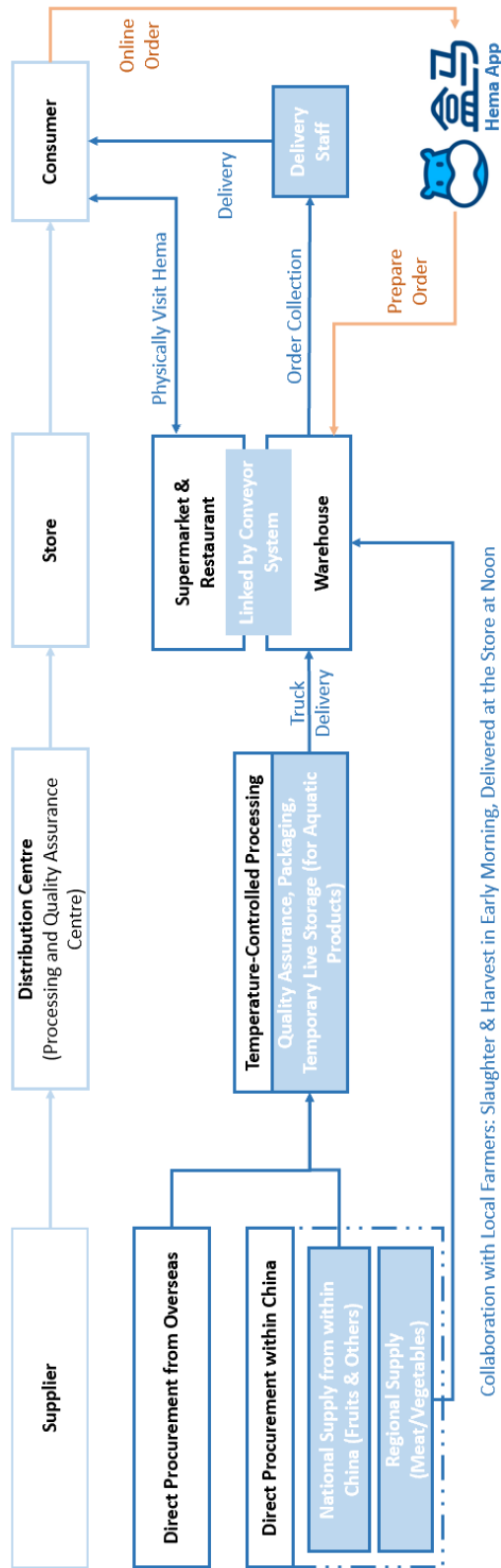
Exhibit 9
Example of Hema's Full Traceability Interface
(Translation by author in red)

Source: Hema App (accessed September 30, 2019)

References

Picture sources

Jack Ma and red king crab, page 5

Source: Najberg, Adam. "Freshippo Supermarket Offers Shoppers a 'New Retail' Experience." *Alizila: News from Alibaba Group,* July 17, 2017. https://www.alizila.com/hema-supermarket-offers-shoppers-new-retail-experience/ (accessed November 11, 2019).

Overhead Conveyor system, page 7

Source: "2018 Freshippo (Hema) Supermarket B-Roll Handout." *Alizila: News from Alibaba Group*, May 2, 2018. https://www.alizila.com/video/2018-hema-supermarket-b-roll-handout/ (accessed November 11, 2019)

Docking station, page 7

Source: "Freshippo Showcases Technology at NRF 2019." *Alizila: News from Alibaba Group*, January 15, 2019. https://www.alizila.com/video/alibabas-freshippo-showcases-technology-at-nrf-2019/ (accessed November 11, 2019).

Text sources

[1] "Global e-commerce grocery market grows by 30% in a year." Foodbev Media, November 21, 2017. https://www.foodbev.com/news/global-e-commerce-grocery-market-grows-30-year/

[2] Kats, Rimma, "Five Charts: The State of Online Groceries." eMarketer, June 7, 2019. https://www.emarketer.com/content/five-charts-the-state-of-online-groceries

[3] Seifert, Ralf. "Amazon Fresh and the Disruption of the Supply Chain." IMD, 2017. https://www.imd.org/research-knowledge/articles/amazon-fresh-and-the-disruption-of-the-supply-chain/

[4] Zarling, Patti. "Consumers Are Slow to Adapt to Online Grocery Shopping." Grocery Dive, April 27, 2018. https://www.grocerydive.com/news/grocery--consumers-are-slow-to-adapt-to-online-grocery-shopping/534067/

[5] "M&S and Ocado to Start Home Delivery Service Next Year." BBC News, February 27, 2019. https://www.bbc.com/news/business-47383159

[6] Thompson, Derek. "Why Amazon Bought Whole Foods." *The Atlantic*, June 16, 2017. https://www.theatlantic.com/business/archive/2017/06/why-amazon-bought-whole-foods/530652/

[7] Debter, Lauren. "Amazon Surpasses Walmart as the World's Largest Retailer." *Forbes*, May 15, 2019. https://www.forbes.com/sites/laurendebter/2019/05/15/worlds-largest-retailers-2019-amazon-walmart-alibaba/#202af3e84171

[8] Hou, Yi. "Freshippo: The Future of Retail is Now." Alibaba Group Investor Day, September 23, 2019. https://www.alibabagroup.com/en/ir/presentations/Investor_Day_2019_Freshippo.pdf

[9] "Why People Still Don't Buy Groceries Online." *The Atlantic*, February 5, 2019. https://www.theatlantic.com/technology/archive/2019/02/online-grocery-shopping-has-been-slow-catch/581911/

[10] Semuels, Alana. "Walmart and Amazon Won't Stop Investing in a Category that is 'bleeding cash'." *Business Insider*, April 4, 2016. http://www.businessinsider.fr/us/online-grocery-is-bleeding-cash-2016-4/

[11] Seifert, Ralf. "Amazon Fresh and the Disruption of the Supply Chain." IMD, 2017. https://www.imd.org/research-knowledge/articles/amazon-fresh-and-the-disruption-of-the-supply-chain/

[12] Vincent, James. 'Welcome to the Warehouse of the Future." The Verge, May 8, 2018. https://www.theverge.com/2018/5/8/17331250/automated-warehouses-jobs-ocado-andover-amazon

[13]Seifert, Ralf and Markoff, Richard. "Tesco and Ocado: Competing Online Models." IMD case no. IMD-7-1975, 2018. https://www.thecasecentre.org/main/products/view?id=150844

[14] "Andover Ocado Warehouse Fire: 'Staff turned off sprinklers'." BBC News, July 22, 2019. https://www.bbc.com/news/uk-england-hampshire-49071456

[15] Griswold, Alison. "There's Still One Big Reason Why People Aren't Buying Their Groceries Online." Quartz. September 14, 2017. https://qz.com/1077743/people-dont-buy-groceries-online-because-they-prefer-to-pick-things-out-in-stores/

[16] "Most Online Grocery Shoppers Also Shop at Brick-and-Mortar Grocery Stores." NPD, April 25, 2018,   https://www.npd.com/wps/portal/npd/us/news/press-releases/2018/us-consumers-take-an-omnichannel-approach-when-it-comes-to-grocery-shopping/

[17] "Online Grocery Shopping Growth Slowing, says Mintel." BBC News, April 12, 2019, https://www.bbc.com/news/business-47900669

[18] "Amazon Surpasses Walmart as the World's Largest Retailer." *Forbes*, May 15, 2019. https://www.forbes.com/sites/laurendebter/2019/05/15/worlds-largest-retailers-2019-amazon-walmart-alibaba/#202af3e84171

[19] "Leader of the Pack: What Makes the Alibaba Group So Successful?" SMU Insights, October 26, 2016,   https://www.smu.edu.sg/perspectives/2016/10/26/leader-pack-what-makes-alibaba-group-so-successful

[20] Wang, Xianqing. "New Retail: The Transformation of Retails." China Economic Publish House. https://books.google.ch/books?id=BoGjDwAAQBAJ&printsec=frontcover&dq=inauthor:%22%E7%8E%8B%E5%85%88%E5%BA%86%E8%91%97%22&hl=de&sa=X&ved=0ahUKEwjssJeSovnkAhWv16YKHeDuDCgQ6AEIKTAA#v=onepage&q&f=false

[21] Shih, Gerry. "Alibaba to invest $4.6 billion in China electronics retailer Suning." Reuters, 11 August 2015.   https://www.reuters.com/article/us-alibaba-suning-appliance/alibaba-to-invest-4-6-billion-in-china-electronics-retailer-suning-idUSKCN0QF0VP20150811

[22] "Alibaba to Buy Major Stake in Taiwan's RT-Mart Business in China." *Taiwan News*, 21 November 2017. https://www.taiwannews.com.tw/en/news/3302694

[23] Russell, Jon. "Alibaba Is Buying Chinese Mall Operator Intime for $2.6B to Modernize Offline Retail." TechCrunch, 11 January 2017. https://techcrunch.com/2017/01/10/alibaba-intime-2-6-billion/

[24] Fang, Yang. "阿里布局线下零售耗资超700亿 麦德龙中国是下个目标？," Tecent Tech, February 25, 2019. https://tech.qq.com/a/20190215/002162.htm

[25] Hou, Yi. "Hema: The Pathfinder of Alibaba's New Retail." Alibaba Group Investor Day, September 17, 2018. https://www.alibabagroup.com/en/ir/presentations/Investor_Day_2018_Hema.pdf

[26] Kang, Younghoon. "What Chinese Consumers Want from Fresh-Food Retailers." McKinsey Retail, April 2019. https://www.mckinsey.com/industries/retail/our-insights/what-chinese-consumers-want-from-fresh-food-retailers#

[27] Ren, Daniel. "China's 'Consumption Upgrade' Trend Undeterred by US-China Trade War, Study Says."   *South   China   Morning   Post*,   November   27,   2018. https://www.scmp.com/business/money/wealth/article/2175292/chinas-consumption-upgrade-trend-undeterred-us-china-trade-war

[28] Tao, Li. "盒马鲜生成阿里新零售样本 开店成本高昂," Sina Finance, July 19, 2017. http://finance.sina.com.cn/roll/2017-07-19/doc-ifyiamif3485845.shtml

[29] Chen, Keyuan. "盒马关店、多家巨头战略调整，生鲜新零售下一步怎么走," 36kr, June 4, 2019. https://36kr.com/p/5212099

[30] "2018 中 国 快 速 消 费 品 （ 超 市 / 便 利 店 ） 百 强 ," CCFA, May 9, 2019. http://www.ccfa.org.cn/portal/cn/view.jsp?lt=31&id=438636

[31] Hou, Yi. "Freshippo: The Future of Retail is Now." Alibaba Group Investor Day, September 23, 2019. https://www.alibabagroup.com/en/ir/presentations/Investor_Day_2019_Freshippo.pdf

Hou, Yi. "Freshippo: The Future of Retail is Now." Alibaba Group Investor Day, September 23, 2019. https://www.alibabagroup.com/en/ir/presentations/Investor_Day_2019_Freshippo.pdf

[33] "What Chinese Consumers Want from Fresh-Food Retailers." McKinsey Retail, April 2019. https://www.mckinsey.com/industries/retail/our-insights/what-chinese-consumers-want-from-fresh-food-retailers#

[34] Ren, Daniel. "China's 'Consumption Upgrade' Trend Undeterred by US-China Trade War, Study Says." *South China Morning Post*, November 27, 2018. https://www.scmp.com/business/money/wealth/article/2175292/chinas-consumption-upgrade-trend-undeterred-us-china-trade-war

[35] 盒马鲜生创始人侯毅：新零售竞争王道，价格与体验." eFuture, November 24, 2017, http://www.e-future.com.cn/news_details.php?nid=3977&lanmuid=1

[36] "Freshippo Kicks off 24-Hour Delivery Service." Alizila: News from Alibaba Group, April 2, 2018. https://www.alizila.com/hema-kicks-off-24-hour-delivery-service/

[37] Luo, Shann. 盒马鲜生创始人侯毅：新零售竞争王道，价格与体验." eFuture, November 24, 2017. http://www.e-future.com.cn/news_details.php?nid=3977&lanmuid=1

[38] "盒马鲜生实体店事件后续：已开辟现金结账点." Sina News, November 4, 2016. http://sh.sina.com.cn/news/m/2016-11-04/detail-ifxxneua4072755.shtml

[39] "盒马鲜生"商业模式重构新零售." Sina Financial News, June 26, 2019. https://t.cj.sina.com.cn/articles/view/5878356267/15e60992b00100fu53

[40] "盒马鲜生"商业模式重构新零售." Sina Financial News, June 26, 2019. https://t.cj.sina.com.cn/articles/view/5878356267/15e60992b00100fu53

[41] "央视暗访华润物美：进场费繁多 单品要价15万." Wangyi Financial News, October 30, 2013. http://money.163.com/13/1030/11/9CEAQ1DB002526O3.html

[42] Qi, Mingchen. "新零售搭台新农业唱戏." *China Morning Post*, June 19, 2019. http://www.zgcbgw.com/html/View_2909.html

[43] He, Wen. "盒马鲜生与云南省农业厅共建直采基地." *China Cooperation Times*, 11 October 2018. http://www.zh-hz.com/HTML/2018/10/09/393637.html

[44] "盒马逐浪新零售深水区 携农业部门打造一批'新农民'." China Ministry of Industry and Information Technology, June 3, 2019. http://www.cecnep.com/lsds/2019/0603/4529.html

[45] "The Rise and Rise Again of Private Label." The Nielsen Company, 2018. https://www.nielsen.com/wp-content/uploads/sites/3/2019/04/global-private-label-report.pdf

[46] Xu et al. "Private Labels in China: Case Studies of RT-Mart and ICA." University of Boras. http://hb.diva-portal.org/smash/get/diva2:1201139/FULLTEXT01.pdf

[47] Hou, Yi. "Freshippo: The Future of Retail is Now." Alibaba Group Investor Day, 23 September 2019. https://www.alibabagroup.com/en/ir/presentations/Investor_Day_2019_Freshippo.pdf

[48] Zhou, Yong. "盒马首开'新零供大会'，给供应商提了四点要求," Linkshop, August 9, 2018. http://www.linkshop.com.cn/web/archives/2018/407606.shtml

[49] "盒马重要产品追溯系统全国正式启动建设," National Important Products Traceability System, August 10, 2018. http://www.zyczs.gov.cn/html/guowuyuanxinxi/2018/8/1533864845421.html