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Uberization of the kitchen: online ordering instead of cooking, the dynamic domain of Food Delivery

Executive Summary

In this article, we are taking a closer look at the food industry. We focus on the new consumption patterns driven by demographic changes while putting this in perspective with the latest technological evolutions. United States and China are once again leading the way, however Emerging Markets are also expected to play a major role. Here are the key takeaways:

- ✓ Demographic and sociological trends, embodied by the rise of Millennials and Generation Z, support the flourishing of online food delivery.
- ✓ According to the industry estimates, the online food delivery business is likely to represent USD 365 bn by 2030.
- ✓ M&A activity confirms the inherent attractiveness of the sector as well as the potential of related business models.
- ✓ Online food delivery companies have recently made significant headway commercially, a success based on their operational focus that responds to primary human needs.

Report

Future belongs to Generation Z (and partly to Millennials)

Observing generational trends provide interesting perspective on how general patterns fare. Studying each *cohort*s enables to understand how different formative experiences, a given (geo) political or economic event as well as the emergence of a major innovation, are likely to impact the life-cycle and to shape the way people perceive the world. If we focus on the youngest generations, we already see a big difference in the grasp and the use of technology. The oldest “Post-Millennial” were basically 10 when the iPhone was introduced in 2007 whereas many Millennials will still have memories of landlines, touch-tones and rotary phones. Needless to talk about kids that are growing with an iPad in their hand, making the technological experience curve largely unequal with respect to their elders. These societal developments are seen as a big enough distinction to draw generational lines through. Michael Dimock, president of the *Pew Research Center*, describes Baby Boomers as a generation that saw the TV to become dominant while Generation X experienced a computer revolution and Millennials grew up in an age where internet became a new way of life[i]. Taking a view over the next 50 years, with the base assumption that the average lifespan is in the 85-90 years old range, we clearly see that Millennials and Generation Z are the two key generations that will define coming consumption patterns.

Table 1: Generational cohorts according to the Pew Research Center [ii]

Generational Nick Name	Time Period	Age Group	Defining Event
The Silent Generation	Born 1928 - 1945	74 - 91 years old	2nd World War
Baby Boomers	Born 1946 - 1964	55 - 73 years old	Economic Prosperity of 1950-1980
Generation X	Born 1965 - 1980	39 - 54 years old	Collapse of Berlin Wall
Millennials	Born 1981 - 1996	23 - 38 years old	2008 Economic Crisis
Post-Millennials / Generation Z	Born 1997 - Present	0 - 22 years old	Rise of Internet / Digital Natives

Demographics, a suitable context for home delivery

First it should be noted that consumption habits of Millennials and Generation Z differ significantly from those of previous generations. Many factors could explain this situation but the major event that defines Millennials' life experiences is certainly the 2008 Economic crisis (please see Table 1). This generation has been disproportionally hit by unemployment and they found it difficult to adapt to the harsh realities of this period. The rise of technology coupled with the recession-driven restructuring meant that they had to relocate to expensive destinations (California, Singapore) or big cities (London, New York, etc.) for job opportunities. Long working and commuting hours implied less time to dedicate to usual time consuming tasks such as food preparation or clean-up. For this generation, convenience and saving time appear as the most important reasons for ordering meals on-line. The situation is slightly different for the digital native group of "Gen Z" which never experienced the world without smart digital technology and internet. Immediacy and convenience are indeed the name of the game defining this generation's attitude vis-a-vis online meal ordering. Overall, technological developments have triggered such fundamental shifts, opening the door for online ordering which is gradually becoming the norm on the demand side.

In order to understand the consumer trends in detail, UBS Evidence Lab analyzed the different generations by interviewing and observing some samples of people. The results confirm the initial intuitive hypotheses[iii]:

- ✓ Younger consumers are ordering on line much more frequently than other generations (figure 1a[iv]).
- ✓ Food preparation and clean-up are considered as domestic drudgery that they would like to eliminate.
- ✓ Use of food delivery applications is gradually increasing in major markets (figure 1b[v]).

Figure 1a: Younger consumers are ordering much more frequently

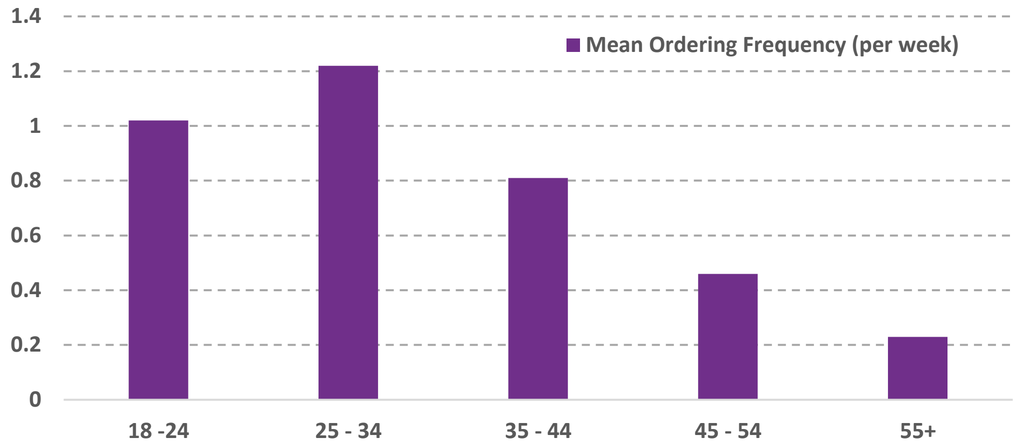
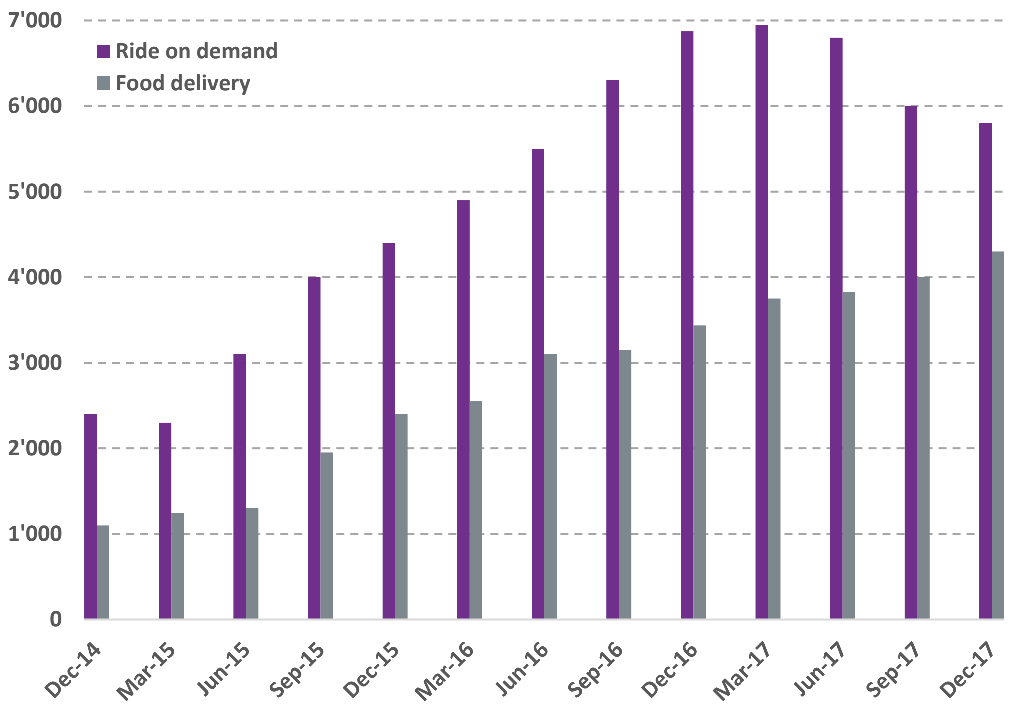


Figure 1b: Food delivery app downloads growing double-digits across major markets



These findings substantiate that the expansion of online food delivery represents a secular trend as opposed to being the latest fashionable craze. Internet and the mass use of smartphones are changing the way people interact and transact, more specifically, disrupting the food industry with habits moving from historically home cooked to away-prepared meals. Such consumption behavior change is opening new perspectives for restaurants, now able to capture customers outside of the traditional bricks-and-mortar model. Technology enables a stronger alignment between supply and demand: today it is easier for consumers to materialize their demand (via smartphone application instead of going physically to takeaway points) which is better and faster satisfied by suppliers (organized and planned deliveries with real time tracking). Finally, one should also mention *urbanization* as a factor that facilitated the emergence of online food delivery by putting in place the necessary infrastructure (cellular network, roadway equipment, etc.) for this business to operate.

Business model and size of the cake

Online food ordering is the process of ordering food through the restaurant's website or mobile application, and more generally, using a third party application that covers several restaurants of a given location. The process consists of a customer choosing a restaurant, scanning the menu items, selecting the desired dish and finally choosing for pick-up or delivery. Payment is then administered online by credit card or in cash at the restaurant when picking up the order. All along the process, the application provides customers with regular updates on food quality, duration of cooking, delivery expectation or pick-up time[vi]. Most of the existing start-ups operate with a physical delivery focus and they target large audiences. Having said this, more specialized segments covering advertising and related niches are also emerging and co-exist next to the main market. Figure 3 details the typology of the industry and the business segmentation. We observe that many recently founded companies with diverse value propositions are already becoming part of the daily food consumption routines such as Blue Apron, which offers ingredients and recipe kit services on a weekly basis, Tastemade Inc and its online food video network or MomentFeed, leader in mobile consumer experience management.

Figure 3: Online food services business models typology[vii]

Basically, revenue generation methods for the industry can be split as follows:

- Commissions on orders from restaurants as a percentage of the order bill,
- Delivery services fee based on the distance between restaurants and the delivery point,
- Revenue sharing with third part ad-services,
- Premium analytics services for restaurants (primary listing, market gaps identification, popular items, etc).

Regarding the size of the market, UBS estimates that global online food ordering can grow within the next decade to USD 365 bn. From around USD 35 bn in today, such expansion would represent a CAGR rate of around 20%[viii]. Although 56% of the current business is based on two countries (46% US, 10% China), this expansion is expected to take place at a more global level. In other regions, the share of delivery in terms of consumer food services' spending is likely to be in the range of 5.5% to 8% by 2022. Looking at the expected trends per region, Asia (excl. China) and Latin America exhibit the most promising growth perspectives in terms of food spending (at +20% and 31% respectively) while Europe is likely to see the largest increase in terms of food delivery and online sales.

Figure 4: International food services moves into delivery[ix]

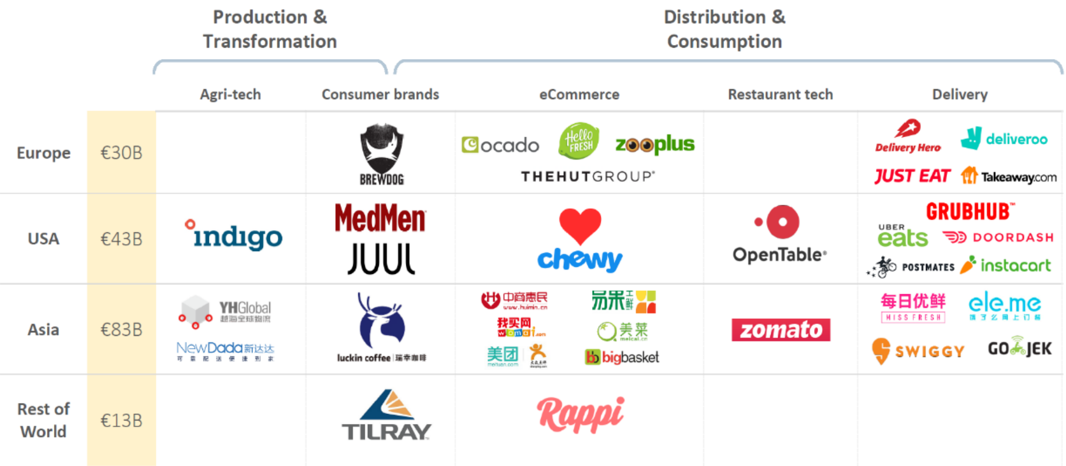
At country level, India is emerging as a key market with two major national players Swiggy, the largest local online food ordering and delivery platform launched in 2014, and Zomato, a restaurant aggregator and food delivery start up founded in 2008. The Indian food sector is promising with the growing purchase power of the local middle class as main catalyst. Growth expectations are around 13% annually by 2023 for a market volume of USD 12.5 bn according to Statista[x,xi]. A potential already identified by tech giants like Amazon who is considering to enter the local market. Indonesia is undertaking similar developments with local rivals' initiatives, Go-Jek and Grab, while online takeaway revenue in Australia are expected to reach USD 3.37 bn by 2022 thanks to the dynamic of the concept of *dark kitchen* imported locally by Deliveroo (Deliveroo Editions)[xii].

In broad terms, growth perspectives within the food delivery sector and its related externalities (analytics, profiling) suggest a relatively untapped potential. Bourgeoning emerging markets coupled with rising demand in developed countries (Europe, Australia) are reinforcing the outlook of the sector.

Company investments: boring yet surprisingly valuable enterprises

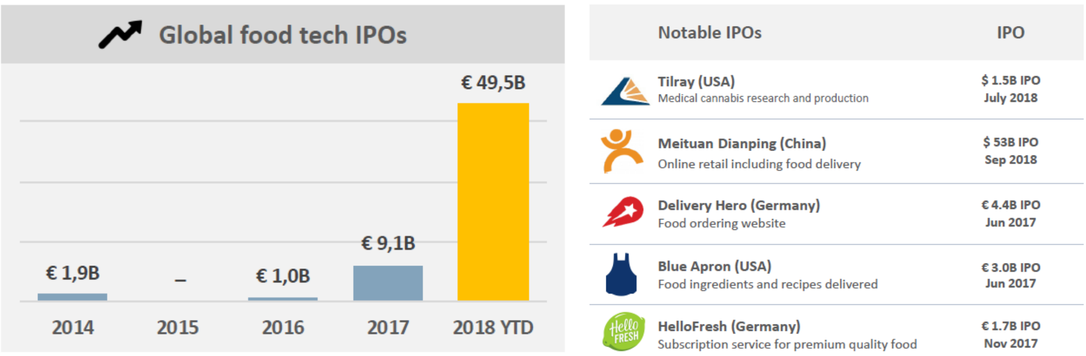
Food distribution companies have seen an interesting development over the last two decades with 35 *unicorns* created globally. Figure 5a provides a snapshot of the existing landscape as of 2017. The first wave of European food tech companies mostly focused on building technology and logistic platforms to deliver food to consumers. While the plethora of new food e-commerce options across the globe has caused investors' disappointment and failures, the five European leading food delivery companies worth now 7 times their combined initial investment. Delivery Hero, Just Eat, Takeaway.com, Deliveroo, and HelloFresh have indeed raised a combined value of EUR 3.1 bn between 2001 and 2012. In October 2019, they represent EUR 21.1 bn, after IPO for four of them concentrated between 2014 and 2017[xiii]. This satisfactory return on investment can be considered as a testimony regarding the long-term solidity and feasibility of food delivery business models. As of today, only Deliveroo remains private among the European big 5 for a conservative estimated value of USD 2 bn after the stake taken by Amazon in May 2019[xiv]. Overall, global food tech *unicorns* represents a combined value of EUR 169 bn while IPO deals in the sector have posted a peak in 2018 at EUR 50 bn of cumulated value.

Figure 5a: Overview of the unicorns' food tech universe[xv]



* *Uber Eats excluded from EUR 43 bn.*

Figure 5b: Global food tech IPO evolution

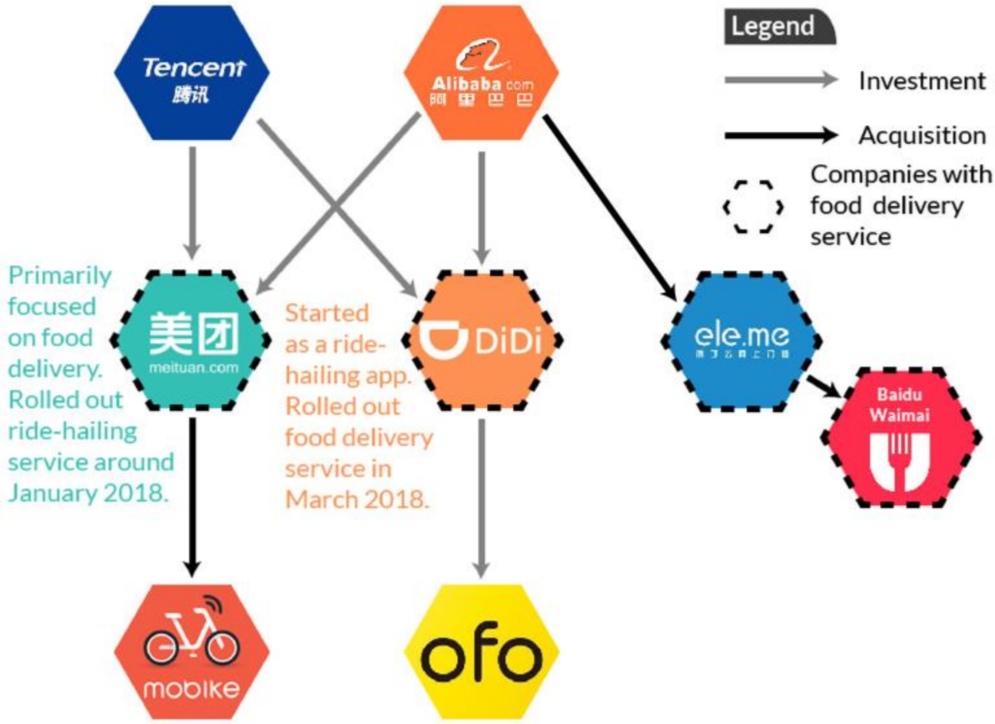


Latest valuations figures and M&A activity confirm the frenetic dynamism of the industry as well as its attractiveness from an investor point of view. The key will be of course the ability of those *unicorn* to establish profitable business models. However, the relevance of this segment with respect to human needs as well as the evolution of consumers' trends explained previously are building a favorable ground.

China: a successful but competitive marketplace

In terms of Ag & Food Tech developments, China is a very vibrant market. It operates mainly on the *downstream* side, at the end of the supply chain, with a focus on distribution (data, logistics) and consumer experience (premium food, wide products range, new brands). In 2017, Chinese agrifood startups raised USD 1.8 bn of investments while for 2018 the sector posted a USD 5.8 bn financing[xvi] which corresponds to a +222% growth. This expansion prompted Chinese tech giants, Alibaba and Tencent, to materialize a strong interest in the sector resulting into a fierce competition between the two groups (please see Figure 7). As a concrete example, Meituan Dianping is one of the world's largest online and on-demand delivery platform. Backed by Tencent (21% of listed shares) and with 65% of local market share, the company is capitalizing on a simple business model where priority listing on its platform is crucial for restaurants to be competitive. Food represents the biggest and fastest growing business (57% of revenues) among other activities (holidays, hotel bookings, *voucher* selling). Its main rival, Ele.me covers 260 million customers for a market share of 27%[xvii] and has been acquired by Alibaba in April 2018 for USD 9.5 bn as part of the vertical integration strategy of the e-commerce conglomerate. Prices competition is tough between the two firms and Alibaba is likely to engage further investments in Ele.me considering the current synergies generated within its overall ecosystem (+137% of revenue growth on yoy basis posted by Baba's Local Consumer Services segment for Q2 2019). Also, Meituan Dianping has announced recently its first quarterly profit (USD 123 mn for Q2 2019) which is clearly a positive sign regarding the profitability outlook of the industry.

Figure 7: Chinese competitive online food industry[xviii]



Food is an essential part of the Chinese social life and considering the size of the market as well as the potential economic scale, we believe the sector is likely to experience additional successful developments locally. As a matter of fact, the combined early stage investments of Alibaba and Tencent accounted for USD 2.7 bn in 2018, which represents half of the total invested (please see above). Moreover, the *downstream* positioning of Chinese players is clearly an answer to the local growing middle class' demand for premium products which is one of the main drivers of the Chinese economy.

Latest global developments: strategic participations and consolidation

Global companies like Alibaba and Uber consider the food delivery sector as a diversifier to their core business. Their existing assets (IT, logistics) and scale (size, coverage) are strategic competitive advantages to overpass barriers to entry. Uber Eats, the online food ordering and delivery platform of Uber, plans to deliver USD 10 bn worth of food orders this years, up from USD 6 bn in 2018. It is the first business outside the company's core ride-haling activity that has posted significant results.[xix]

On its hand, Amazon also made a strategic move in May 2019 as mentioned earlier. Amazon led a USD 575 mn funding round in the UK food delivery company Deliveroo, continuing its efforts to diversify into the takeaway market. Deliveroo indicated this fresh capital will be used to expand its UK engineering team, its delivery coverage and will contribute to the development of new products. This deal is of course intensifying competition and will be interesting to monitor given Amazon's historic disruption capabilities.

Consolidation operations are also taking place as per the announced merger in August 2019 between Just Eat and Takeway.com. The USD 6 bn deal will create the largest food delivery company outside China enabling the combined entity to reach a competitive scale which is critical to address the huge opportunity set offered by the market.

Conclusion

Demographic and sociological trends are clearly bringing new consumption patterns which support the flourishing of online food delivery globally. *Urbanization* is also supportive as people get more concentrated in urban areas, infrastructure for food production and distribution have to be adapted to satisfy a demand proportionally more important. However, we have shown in this article how technology is definitely the main catalyst, enabling live interactions between supply and demand and offering an incredible market tracking potential likely to favor further transactions concretization.

Those structural changes are boosting perspectives of an industry likely to represent USD 365 bn by 2030 according to latest estimates. Online food delivery services are indeed expected to be omnipresent within key markets like China, US and Europe. Emerging economies capitalizing on their growing middle class with a significant purchase power will also have a role to play. Latest developments in India are especially significant in this aspect. Moreover, the current competitive environment as well as the dynamic M&A activity within the sector bears testimony to its inherent attractiveness and long-term viability.

As the industry grows, regulation is however likely to become stricter. Issues of environmental footprint and sustainability, food waste as well as customers data security are among the coming challenges for industry players. Also, automation of cooking processes as well as of delivery tasks, for example through drones, has the potential to generate further development opportunities for existing stakeholders or new entrants.

Appendix

Cohort: a group of individuals that experienced a common event or that are sharing common characteristics.

Dark Kitchen: a professional kitchen where restaurants style meals are cooked for delivery-only meals. Also known as Ghost Kitchen, it is a way for restaurants to pool resources and increase their capacity, the purpose being to serve only the food delivery market. Dining area for walk-in are excluded.

Downstream: refers to the end of the food supply chain targeting final consumers by opposition to the Upstream. Sub segments include distribution, cooking, consumption marketplace and consumers experience.

Pew Research Center: a nonpartisan fact tank that inform the public about issues, attitudes and trends that are shaping the world. They conduct also public opinion polling, demographic research, content analysis and data-driven social science research.

Uberization: a recent economic phenomenon involving services that put directly in contact professionals and clients thanks to new technologies. The term is derived from the company Uber whose mobile application has disrupted significantly the taxi industry. Improvement of operations' efficiency and a quasi-elimination of intermediaries are among the main characteristics of "uberized" businesses.

Upstream: refers to the production parts of the food supply chain by opposition to the downstream. Sub segments include farming, robotics and equipment, biotech, innovative food and agribusiness marketplaces.

Urbanization: refers to the increasing number of people living in urban areas whereby rural culture is gradually replaced by urban culture. This phenomenon involves significant social, economic and environmental changes.

Unicorn: a start-up company valued at more than USD 1 billion.

Voucher: a bond on a redeemable transaction that worth a certain value and whose expense is subject to specific conditions, such as a minimum number of buyers asking for a discount from which online companies generate commissions, on specific goods.

End notes

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[i] http://mentalfloss.com/article/533632/new-guidelines-redefine-birth-years-millennials-gen-x-and-post-millennials.

[ii] https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/.

[iii] UBS Report « Is the Kitchen Dead? » – page 7.

[iv] UBS Evidence Lab consumer survey – global data.

[v] UBS Evidence Lab, Sensor Tower UBS Evidence Lab, Sensor Tower Note: aggregate of iOS and Google Play (exception: China where equal download for iOS and Android is assumed) based on 12 major markets analysis.

[vi] https://en.wikipedia.org/wiki/Online_food_ordering.

[vii] https://www.slideshare.net/raffaele.mauro/food-startups-ecosystem-10-settembre.

[viii] UBS Report « Is the Kitchen Dead? » – page 22.

[ix] Bloomberg Intelligence Report "Delivery may rise 11% a year outside China, US contributing" - Analyst: Sean Handrahan.

[x] https://www.techcircle.in/2019/07/30/amazon-may-start-food-delivery-business-in-india-report.

[xi] https://www.statista.com/outlook/374/119/online-food-delivery/india.

[xii] https://www.lifestylefood.com.au/articles/dark-kitchens-what-are-they-and-what-do-they-mean-for-you.aspx.

[xiii] https://foodtech.vc/the-state-of-european-food-tech-2018.pdf.

[xiv] https://techcrunch.com/2019/05/16/amazon-takes-a-bite-into-deliveroo/

[xv] https://foodtech.vc/the-state-of-european-food-tech-2018.pdf – page 3.

[xvi] AgFunder Investing Report: 2018 China AgriFood startup – page 5.

[xvii] https://seekingalpha.com/article/4293346-alibaba-shows-promising-trend-local-consumer-services.

[xviii] https://www.sixthtone.com/news/1002041/alliances-form-in-transport-and-food-delivery-turf-war

[xix] https://www.ft.com/content/0a64006c-34f6-11e9-bb0c-42459962a812, Financial Times articles dated on February 21, 2019.