



## Delivering growth

The impact of third-party platform ordering on restaurants

November 2019

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# Executive summary



Food delivery is growing rapidly across Europe. Existing estimates suggest that the market is experiencing double-digit growth rates and could be worth \$25bn by 2023.<sup>1</sup> This study looks at how technology is contributing to that growth and measures the resulting impact on the overall restaurant sector.

Until recently, ordering meals for delivery, even in major urban centers, required calling a restaurant directly, or ordering and collecting in person. New technology has made delivery more convenient for consumers and broadened the range of food available for delivery. First via third-party platforms that allow consumers to place orders with lots of restaurants, presenting their menus and taking orders (often called 'aggregators', such as Just Eat, Takeaway.com) in return for a fee. Then, more recently, third-party platforms that facilitate delivery for restaurants without their own delivery staff have become more prevalent (marketplaces such as Uber Eats, Deliveroo or Glovo). These platforms allow restaurants to provide customers with delivery services by paying a fee to access a marketplace and network of couriers. This report seeks to explore how the rise of those platforms, and in particular the new marketplace apps, has affected the restaurant sector.

It is apparent that:



New technology helps restaurants to respond to a significant shift in consumer preferences, with a rising demand for convenience.

For many restaurants, it would be wholly impractical to offer delivery without third-party platforms due to higher fixed costs associated with independently fulfilling delivery orders. In a survey by Uber Eats to support this study, the share of restaurants on its platform that offered delivery before joining was only 38% in London and Paris and 36% in Warsaw, with this figure higher at 52% in Madrid. The share that then reported they would have launched such a service if they had not joined was 48% in London, 50% in Paris, 67% in Madrid and 47% in Warsaw. The platforms also connect restaurants to new consumers who might not hear about them otherwise.



This will mean largely incremental sales for those restaurants offering delivery for the first time. According to the Uber Eats survey, the share of restaurants on its platform that reported an overall increase in sales after joining was 69% in London, 74% in Paris, and 67% in Warsaw, with this slightly lower at 59% in Madrid.



Platforms are enabling a substantial re-shaping of the supply chain, with virtual kitchens (either entirely new facilities, or under-utilized existing restaurant kitchens) and other innovations that match supply to demand and create new opportunities for entrepreneurial restaurateurs. Uber Eats data suggests that operators with virtual restaurants in France and the UK have seen sales increase by more than 50%.



Many restaurants have struggled in recent years and there is naturally a concern that the sector might lose out as the market changes. Given the prominent economic and cultural role of restaurants, any impact on their businesses could have important consequences for urban life and the vitality of local economies. This study attempts to isolate the impact of third-party platforms against the background of other trends affecting the sector (which has always been competitive, with a material failure rate particularly for new businesses).

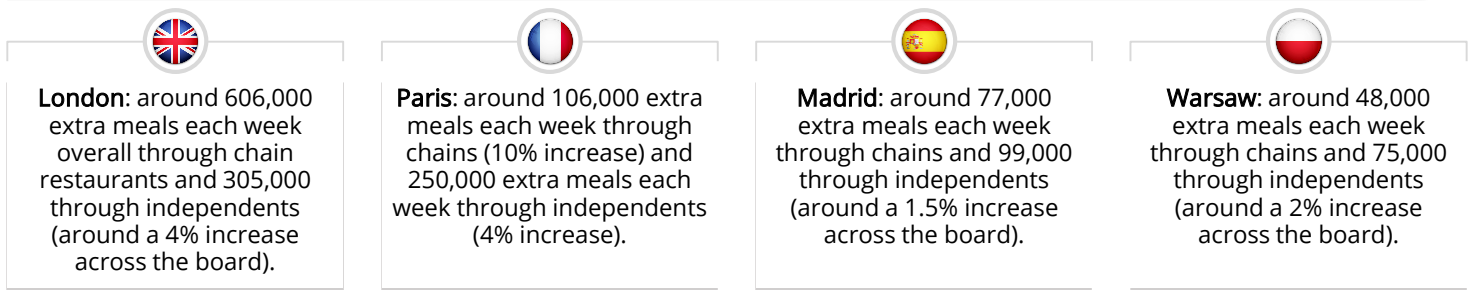
<sup>1</sup> Headline figure publicly available from Statista: <https://www.statista.com/outlook/374/102/online-food-delivery/europe>

There is little systematic data estimating restaurant-level impacts, although some restaurants have said that a significant percentage of delivery sales were incremental to their existing business. It is reasonable to expect that restaurants who offer their services through third-party platforms benefit, or they would withdraw their services. What is less clear is the impact on the restaurant sector as a whole, including the extent to which third-party platforms have enabled an overall expansion in the restaurant sector, e.g. replacing meals cooked at home with restaurant meals.

To better assess these overall impacts, a consumer survey was conducted in four key European cities to understand consumer behavior and develop a context-driven counterfactual to understand behavior if third-party platforms did not exist. Engagement with restaurants was also used to inform the revenues and costs associated with different kinds of meals.

Our research identified two common trends across all four cities, based on extrapolating from those survey results:

 **The number of meals sold by across the restaurant sector – both chains and independent restaurants – increased as a result of third-party platforms**



 **Third-party platforms have driven an increase in revenues and profits across the sector**



The results show material variation between markets. Restaurants that sign up for third-party platforms are likely to be better able to benefit from shifts in consumer preferences and demand, while some of those that do not may see lower turnover and profit. This might particularly be the case to the extent restaurants previously offered delivery and operated in a market where few others were able to do so and this was a barrier for competitors that otherwise offered a more attractive proposition to consumers.

The positive result does not mean that third-party platforms cannot do more to improve outcomes in the restaurant sector. Over time, the growth of currently nascent services like virtual kitchens might provide additional dining options for consumers and means of utilizing capacity for restaurants, for example. While this report finds that platforms increase the growth of the restaurant sector, growth in the restaurant sector will also tend to benefit platforms.

This report concludes that third-party platforms should be understood as improving the economic position of the restaurant sector, increasing turnover and to a lesser extent profits, versus a scenario in which such platforms do not exist. This impact will affect how the restaurant sector grows over time, alongside cyclical pressures, consumer tastes and other factors contributing to market trends.

<sup>2</sup> The greater increase in aggregate net impacts on profit relative to turnover in Madrid is driven by the relatively lower rate of substitution by meals ordered through third-party platforms for non-restaurant sector meals (see Figure 9). As a result of this, turnover increases from growth in the restaurant sector are more limited and counteracted by the decrease in turnover per meal due to substitution from on-premises dining to collection and delivery meals. Meanwhile, relatively more meals substitute lower-margin direct deliveries for higher-margin third-party deliveries, resulting in an overall larger net increase in total industry profits despite a not as significant net increase in turnover.



# 1. Introduction

The restaurant sector is a significant source of entrepreneurship (including small-and medium-sized businesses, or “SMBs”), growth, and employment, and a significant part of many economies in terms of its size alone. Across the EU28,<sup>3</sup> there are 1.6 million businesses in the food and beverage service activities sector, with a collective turnover of €421 billion and responsible for €175 billion in value added.<sup>4</sup>

The sector is also a cultural asset to a city, adding to a place’s social fabric, and distinguishing it as an attractive place to live and do business. Restaurants therefore have a wider importance disproportionate to the economic size of the restaurant sector.

The restaurant sector has always been challenging for some market participants, particularly smaller start-ups. One academic study found that out of 141 new entrants to the London Good Food Guide in 2004, 94 had left by 2010, while another study found that average failure rates in the sector in Ireland were “15% after one year; 37.62% after three years; and 53.06% after five years in business”.<sup>5 6 7</sup> Cyclical or secular pressures on consumer disposable incomes or changes in tastes, causing them to cut back their restaurant spending, can also exacerbate the challenge of the restaurant business.

The restaurant sector is also, like many others, being affected by changes in technology. New technologies more widely have changed consumer expectations about businesses with which they interact. Third-party platforms for ordering meals to be collected or delivered and consumed off-premises (“third-party platforms”) are creating a new means for consumers to buy meals in an increasing number of cities and towns. While meals ordered for off-premises consumption, both to collect or be delivered, have traditionally been readily available in urban areas, third-party platforms are providing a new means for restaurants to market, facilitate, and deliver orders at a lower cost than would otherwise be possible.

Uber has commissioned Deloitte to assess the impact of third-party platforms, including, but not limited to, its own platform Uber Eats, on the restaurant sectors in four European cities: London, Paris, Madrid, and Warsaw.

Given the importance of the restaurant sector, it is worth understanding the opportunity food delivery presents to restaurants, and understanding the impact on the sector as a whole. Assessing the impact of new technological changes such as third-party platforms, and pinning down a counterfactual world without them for comparison, is challenging given other pressures and opportunities faced by restaurants. However, this dynamism makes it all the more important to understand how third-party platforms are contributing to the success or failure of the restaurant sector.



<sup>3</sup> The EU28 refers to Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the UK.

<sup>4</sup> Eurostat, structural business statistics, Annual enterprise statistics for special aggregates of activities (NACE Rev. 2)

<sup>5</sup> De Silva, Dakshina, Caroline Elliott, and Robert Simmons (2016), “Entry, Exit And Price Competition In Uk Restaurants”; [https://www.lancaster.ac.uk/staff/desilvad/RestaurantsPaper\\_20160607.pdf](https://www.lancaster.ac.uk/staff/desilvad/RestaurantsPaper_20160607.pdf)

<sup>6</sup> Healy, J.J. and Máirtín mac Con Iomaire (2018), “Calculating restaurant failure rates using longitudinal census data”; <https://www.tandfonline.com/eprint/9XUKFyAHcjZSaf2FW5zj/full>

<sup>7</sup> Other studies in different regions have also found similar findings, although they have also highlighted that these are not much higher than other services sector start-ups; for example, in Western US: [https://www.researchgate.net/publication/267695784\\_Only\\_the\\_Bad\\_Die\\_Young\\_Restaurant\\_Mortality\\_in\\_the\\_Western\\_US](https://www.researchgate.net/publication/267695784_Only_the_Bad_Die_Young_Restaurant_Mortality_in_the_Western_US)

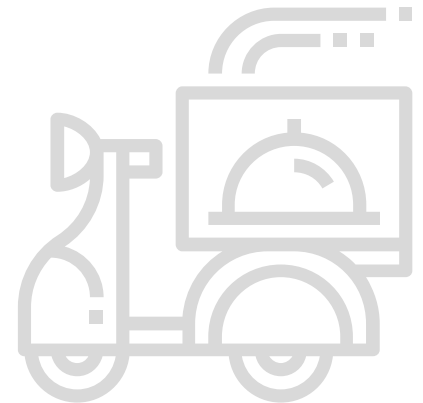
The rest of this report is structured as follows:

1. Section 1 introduces the existing literature around third-party platforms, consumer trends and the analytical approach for this study.
2. Section 2 provides analysis of the context of third-party platforms in the restaurant industry in Europe.
3. Section 3 outlines the methodology and results of this study on the consumer behavior landscape and net financial impacts on the restaurant industry in London, Paris, Madrid, and Warsaw.
4. Finally, Section 4 provides concluding remarks on the implications of the findings of this study and priorities for future research.

## 1.1 Potential impacts on restaurants

Existing analysis points to many practical advantages of third-party platforms. For example, restaurants are able to fulfil collection and delivery orders more efficiently and accurately by having a digital order and focusing on preparation, while outsourcing the expensive door-to-door delivery. Meanwhile, they are also able to reach more customers through platform-based marketing and promotions, connecting them to restaurants they might not otherwise have known about. These network effects, with more restaurants attracting more customers and vice versa, mean that the platforms can grow and connect restaurants to customers that might not otherwise have been aware of them.

The ability to offer new channels through which people can order food therefore presents new revenue streams for restaurants that may have not previously offered off-premises food, while consumers enjoy the additional choice. Restaurants may also be better able to maximize revenue from under-utilized assets (e.g. during mid-week dry periods). Meanwhile, new types of restaurants, such as “kitchen-only”, delivery-focused restaurants, have emerged, allowing existing restaurants to expand their reach to new customers outside their local areas and creating new opportunities for entrepreneurs.<sup>8 9 10</sup>



At the same time, however, existing analysis suggests some potential challenges associated with how third-party platforms are affecting the restaurant sector. There is a general concern that the rise in off-premises meals, and delivery in particular, might lead to substitution from higher-margin channels, such as on-premises dining. However, this substitution may only be material at an industry level, from those restaurants that do not offer delivery to those that do. The scale of this potential industry-level substitution is considered in the quantitative analysis for this study.

<sup>8</sup> The Caterer, “Business – the rise of the restaurant delivery service”; <https://www.thecaterer.com/articles/356657/business-the-rise-of-the-restaurant-delivery-service>

<sup>9</sup> Deloitte, “The restaurant of the future”; <https://www2.deloitte.com/us/en/pages/consumer-business/articles/restaurant-future-survey-technology-customer-experience.html>

<sup>10</sup> Financial Times, “The start-ups building ‘dark kitchens’ for Uber Eats and Deliveroo”; <https://www.ft.com/content/a66619b0-77e4-11e9-be7d-6d846537acab?sharetype=blocked>

## 1.2 Consumer trends and restaurants

The growth in third-party platforms may reflect deep-seated trends in consumer preferences. Many consumers appear to value convenience more when purchasing goods and services:<sup>11</sup>

- Eurostat data indicates that the share of sales from e-commerce, with goods delivered to their home or office rather than purchased from bricks-and-mortar stores, has increased by seven percentage points from 13% in 2008 to 20% across the EU28 in 2017. This is even higher in some countries, such as the UK, Ireland, Belgium, the Netherlands, and the Nordics (including Norway and Iceland).<sup>12</sup>
- 27% of consumers report wanting products that make their lives easier, 26% want them to be more convenient to use.<sup>13</sup> At the same time, consumers are becoming more comfortable communicating and managing everyday tasks through smartphone apps.<sup>14 15</sup>

This preference for convenience might reflect recent technological trends as well as greater time pressure associated

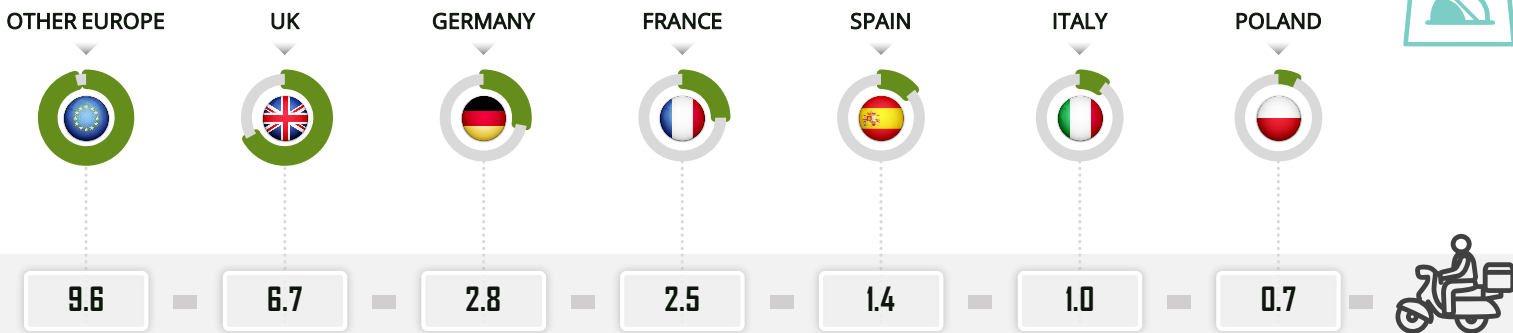
with real incomes rising faster than life expectancy, which increases the relative scarcity of time, driving consumers towards quicker, more convenient options.<sup>16</sup>

Regardless of the fundamental driver, the consumer preference for convenience, by no means confined to the restaurant sector, is likely to at least partly explain the consumer preference for quicker food options. This demand is expected to result in the online food delivery sector growing by over 10% a year to around \$25bn across Europe by 2023.

Although food delivery is not in itself a new phenomenon, third-party platforms have made delivered food more widely available and provided more, and in many cases healthier or more premium choices to consumers, in line with what consumers want. Third-party platforms have also reduced the time needed for consumers to order delivery, where they allow for checking multiple restaurants in one app and track orders as they are being prepared and delivered. Third-party platforms have therefore allowed restaurants to respond more effectively to this change in consumer preferences.

Figure 1: Online food delivery, by major economy, 2023, Europe<sup>17</sup>

### ONLINE FOOD DELIVERY, \$BN



<sup>11</sup> Nielsen, "Six factors driving consumers' quest for convenience"; <https://www.nielsen.com/eu/en/insights/article/2018/six-factors-driving-consumers-quest-for-convenience/>

<sup>12</sup> Eurostat, [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:E-sales\\_and\\_turnover\\_from\\_e-sales\\_2008\\_to\\_2017\\_EU-28\\_\(%25\\_enterprises\\_25\\_total\\_turnover\).png](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:E-sales_and_turnover_from_e-sales_2008_to_2017_EU-28_(%25_enterprises_25_total_turnover).png)

<sup>13</sup> Nielsen, "Six factors driving consumers' quest for convenience"; <https://www.nielsen.com/eu/en/insights/article/2018/six-factors-driving-consumers-quest-for-convenience/>

<sup>14</sup> For example, financial planning – The Independent, "Almost half UK millennials want to do their financial planning on a smartphone"; <https://www.independent.co.uk/news/business/news/uk-millennials-smartphones-banking-savings-phones-financial-planning-smartphone-apps-a7773291.html>

<sup>15</sup> Forbes, "Phone Calls, Texts Or Email? Here's How Millennials Prefer To Communicate"; <https://www.forbes.com/sites/larryalton/2017/05/11/how-do-millennials-prefer-to-communicate/#4a07cee76d6f>

<sup>16</sup> Hamermesh, D. S. (2019) Spending Time: The Most Valuable Resource, OUP USA.

<sup>17</sup> Headline figures publicly available from Statista, e.g. <https://www.statista.com/outlook/374/102/online-food-delivery/europe>



### 1.3 Analytical approach

This report seeks to assess the net impacts of third-party platforms on the restaurant industry. To best do this, it is necessary to take into account the full choice set from a consumer perspective. Consumers can get their meals from a number of sources, including dining at a restaurant and ordering food for collection or delivery, but also from other sources outside the restaurant industry entirely. This includes cooking at home one meal at a time but also includes convenient options such as bulk cooking and pre-preparing meals, buying ready-made meals and using delivered cook-at-home meal kits.<sup>18</sup> While demand for food in general is likely to be inelastic (people need to eat), demand for food through each of these channels is likely to be elastic and dependent on cost and contextual factors including time available or convenience.

As such, delivered meals for off-premises consumption may be substituting for meals that would have been consumed on-premises, but they could also be substituting for meals otherwise cooked at home or sourced from another non-restaurant option. This would suggest more meals eaten from restaurants overall. In addition, meals ordered through third-party platforms could also be substituting for meals ordered through lower-margin channels, such as meals delivered using high-cost, own-delivery services. This would mean higher turnover and/or profit in the industry.

As such, the net impacts of third-party platforms on the restaurant industry will reflect both:

- Shifts in how meals are ordered within the restaurant sector; and
- Growth across the industry from meals otherwise not provided by restaurants.

A full assessment of the net impact therefore needs to consider what consumers would do in a counterfactual where third-party platforms do not exist.

This study aims to develop and investigate such a counterfactual, estimating the net financial impact of third-party platforms on the restaurant industry in four European cities: London, Paris, Madrid, and Warsaw. These cities have been chosen in order to provide a reasonable spread in terms of third-party platform usage and wider economic circumstances within Europe, while remaining focused on markets in which those platforms are used enough for an analysis of their impact to be meaningful. This does mean, however, that this is a study of the impact of third-party platforms where they have established themselves, not the average impact across national economies. To the extent that third-party platforms increase their geographical range over time, national impacts can be expected to converge on these city impacts (though consumer preferences and other circumstances could differ outside urban centers).

The counterfactual in this study is estimated and compared to actual outcomes using two main sources:

- A **consumer survey**, which identifies specific scenarios in which respondents use third-party platforms and for what channel the ordered meals substitute.
- An evidence-gathering exercise including a **restaurant survey; direct engagement with restaurants; and desk research** which develops assumptions for the costs and benefits associated with different order types (including employment multipliers).

The structure of the consumer survey allows for the development of a consumer behavior landscape in a counterfactual world where third-party platforms do not exist, while keeping wider trends (such as growing consumer taste for convenience) fixed. By combining the resulting impact on consumer behavior with data on the turnover and costs associated with ordering through different channels and restaurant segments, it is possible to isolate the impact of third-party platforms on restaurant economics.

<sup>18</sup> The Guardian, "Just Eat and HelloFresh tap into appetite for home-delivered food"; <https://www.theguardian.com/business/2019/mar/06/just-eat-and-hellofresh-tap-into-appetite-for-home-delivered-food>

## 2. Technology and food delivery in Europe

Commentary about the restaurant industry, both in Europe and more globally, puts third-party platforms at the forefront of radical shifts in the means and frequency with which restaurants and their customers interact. However, platforms have been introduced in the context of two different trends in the industry:

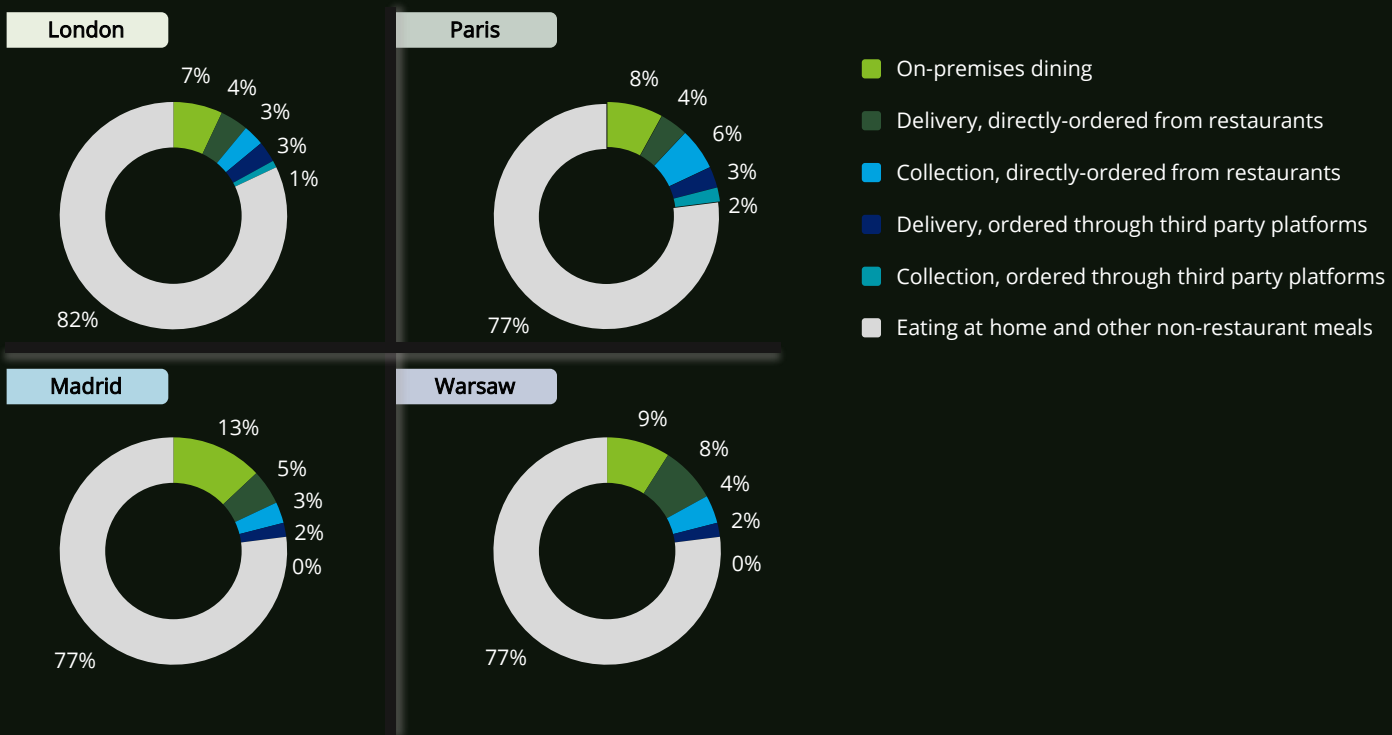
- New technological innovations: allowing restaurants to operate more efficiently or more effectively, e.g. ordering and payment technologies, such as tablets and kiosks for ordering at the table or on-the-go.<sup>19 20</sup>
- Shifts in consumer preferences toward convenience and delivery, alongside a focus on healthier and quality food options, both generally and in eating out (sometimes poorly served by existing takeaway options).<sup>21 22</sup>

In this context, third-party platforms reflect part of how technology is facilitating the sector in adapting to changes in its environment. While food delivery is not a new concept for either restaurants or consumers,

third-party platforms make it easier for more restaurants to deliver and provide consumers more choice, responding effectively to changes in consumer preferences.

From the perspective of consumers, platforms make the at-home, or other off-premises, ordering experience simple and convenient. They aggregate the menus and prices of a number of restaurants beyond the traditional local takeaways, allow customers to customize orders, pre-order meals, choose collection or delivery, pay for their orders without the need for cash at pickup or delivery, and track the status of their orders.<sup>23</sup> They are a one-stop shop from the customer perspective for at-home dining, making up between 9-23% of meals eaten from restaurants. They also comprise 2-5% of meals overall in our sample (see Figure 2).<sup>24</sup> When asked what their reasons are for ordering from third-party platforms, a large majority of customers in all cities cited the ease of ordering and payment (see Figure 3).

Figure 2: Where the average consumer gets their meals over an average 7-day period<sup>25</sup>



Source: Deloitte survey, July 2019.

<sup>19</sup> Forbes, "Five Technologies That Are Reshaping The Restaurant Industry For 2019"; <https://www.forbes.com/sites/forbescommunicationscouncil/2019/01/18/five-technologies-that-are-reshaping-the-restaurant-industry-for-2019/#3fdefaf1822f>

<sup>20</sup> Financial Times, "McDonald's to roll out in-store mobile ordering"; <https://www.ft.com/content/f7942294-ad09-11e6-9cb3-bb8207902122>

<sup>21</sup> Nielsen, "Six factors driving consumers' quest for convenience"; <https://www.nielsen.com/eu/en/insights/article/2018/six-factors-driving-consumers-quest-for-convenience/>

<sup>22</sup> Deloitte, "Changing tastes: The UK Casual Dining Market"; <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/ConsumerIndustrialProducts/deloitte-uk-casual-dining-market.pdf>

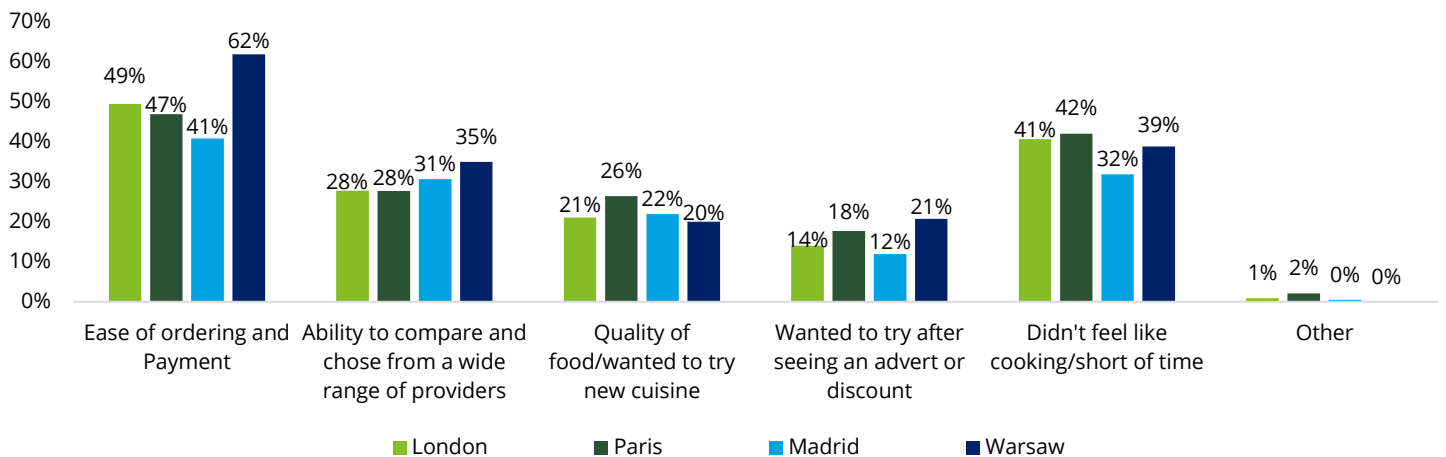
<sup>23</sup> Platforms in Europe that mainly aggregate restaurant menus and allow customers to pay online ("aggregators") include JustEat, Delivery Hero, and Takeaway.com. In addition, platforms such as Uber Eats and Deliveroo provide the same services as well as also deliver orders ("delivery platforms").

<sup>24</sup> The Deloitte Survey refers to primary research conducted with 500 respondents in each of London, Paris, Madrid and Warsaw. For more information please refer to Section 0 and the Appendix.

<sup>25</sup> 'Other' refers to meals eaten outside the restaurant sector, such as pre-prepared or cooked at home meals.

Figure 3: Reasons for using third-party platforms

What are the reasons you choose to order food using a third-party platform?



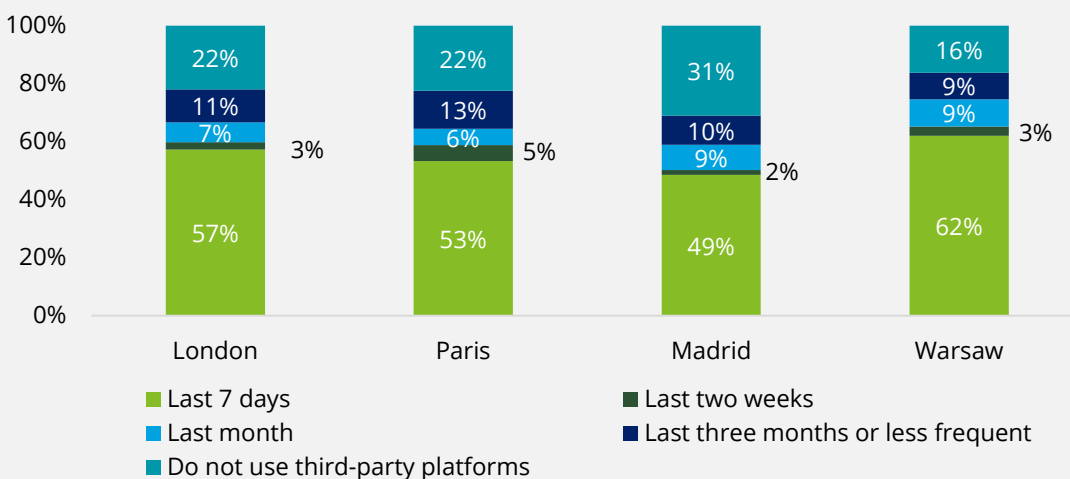
Source: Deloitte survey, July 2019.

### Box 1: Penetration of third-party platforms

A survey launched as part of this study finds that 59% or higher of adults in London, Paris, Madrid, and Warsaw ordered from a third-party platform at least once in the last month, with rates of ordering highest in Warsaw at 75% (see Figure 4). Adults between 18-39 years old across all three cities had the most frequent usage rates of third-party platforms, with 71-80% ordering from a third-party platform in the last seven days. Adults aged 60+ were the lowest users, with 32-63% never ordering from a third-party platform.

Figure 4: Market penetration of third-party platforms

Have you used a third-party platform to order food in the...



Source: Deloitte survey, July 2019

For restaurants, third-party platforms can also provide benefits by offering modular, pick-and-choose services that work for them. For example, restaurants can:

- Use third-party platforms as a one-stop shop for collection and delivery orders, listing their menus, accepting payments, and for deliveries allowing platforms to facilitate the delivery of their orders (e.g. through third-party platforms such as Uber Eats, Deliveroo or Glovo).
- List their menus on third-party platforms and receive electronic payments, while using their own delivery services for delivery orders (e.g. through third-party platforms such as JustEat, Delivery Hero, and Takeaway.com).<sup>26</sup>
- List on multiple third-party platforms, or on both third-party platforms and their own mobile or online portals.<sup>27</sup>

Third-party platforms can act as an online portal for restaurants, presenting their menu and handling payments processing, while providing marketing that allows them to reach new customers and push promotions directly to customers. For platforms such as Uber Eats and Deliveroo, these services are integrated with delivery fulfilment as well to provide an end-to-end solution for offering customers delivery services.

Many restaurants would not be able to offer delivery without third-party platforms. In a survey by Uber Eats to support this study, of the share of restaurants on its platform that offered delivery before joining was only 38% in London and Paris and 36% in Warsaw, with this figure higher at 52% in Madrid. The share that then reported they would have launched such a service if they had not joined was 48% in London, 50% in Paris, 67% in Madrid and 47% in Warsaw.<sup>28</sup>

In return for services such as handling payments, delivery logistics for delivery orders, and marketing, third-party platforms generally take a percentage fee from restaurants. This ranges from 20-30% for orders where the platform also delivers the food, and approximately 15% for collection orders or where delivery is handled by the restaurant.<sup>29 30 31</sup>

The benefits of third-party platforms are likely to vary by restaurant, with some restaurants potentially better able to exploit the changing trends in consumer preferences and new technologies to draw in new customers and revenue streams:

- **Additive growth:** Third-party platforms open opportunities for restaurants to grow the share of overall meals purchased from restaurants by potential customers (i.e. people in the local area), substituting for meals that would have been cooked at home.<sup>32</sup> For example, with people's lives getting busier, restaurants offering premium or healthier fast-food options may be able to draw in customers looking for a convenient but health mid-week alternative to cooking, an option that might not be offered by traditional local takeaways otherwise.<sup>33 34</sup>
- **Better asset utilization:** Third-party platforms can also help increase utilization of otherwise idle assets, for example during mid-week or afternoon periods. This can help increase recovery rates during these periods for fixed costs. For example, explaining why they decided to offer delivery, a restaurant owner noted that:

*"As a hospitality business, [the restaurant] depend[s] highly on customers coming in every day. One thing that stops customers coming in is heavy rain. A great way to off-set this is by offering a delivery option, and it comes as no surprise that [the restaurant's] busiest days for delivery are when the weather is especially terrible."<sup>35</sup>*

<sup>27</sup> For example, Papa John's in London and Pizza Hut in Paris.

<sup>28</sup> Uber Eats survey of restaurants, November 2019. Sample size: 294 respondents for Paris; 187 respondents for London; 47 respondents for Madrid; and 100 respondents for Warsaw.

<sup>29</sup> Wall Street Journal, "Restaurants Are Arm-Twisting Delivery Companies to Lower Fees"; <https://www.wsj.com/articles/restaurants-are-arm-twisting-delivery-companies-to-lower-fees-11561282202>

<sup>30</sup> Financial Times, "Uber Eats to cut fees in battle with Deliveroo and Just Eat"; <https://www.ft.com/content/0a64006c-34f6-11e9-bb0c-42459962a812>

<sup>31</sup> Just Eat, <https://restaurants.just-eat.co.uk/>

<sup>32</sup> This would therefore reflect non-zero sum growth for the restaurant industry, although potentially at the expense of other industries e.g. supermarkets.

<sup>33</sup> The Independent, "Consumers look for 'healthier' fast food"; <https://www.independent.co.uk/life-style/health-and-families/consumers-look-for-healthier-fast-food-2036487.html>

<sup>34</sup> Financial Times, "Dark kitchens: is this the future of takeaway?"; <https://www.ft.com/content/d23c44fe-4b0b-11e7-919a-1e14ce4af89b>

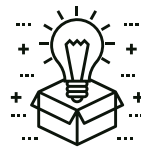
<sup>35</sup> Uber Eats Blog, "The Man Behind London's Favourite Bubble Tea On How Delivery Impacted His Business"; <https://www.ubereats.com/blog/en-GB/delivery-partner-interview-biju-bubble-tea/>

Restaurants can manage their engagement with third-party platforms. On nights with fewer dine-in or other channel customers, they can accept orders through third-party platforms to increase recovery on costs that would generally be incurred regardless, while during busier nights they can accept fewer orders to manage demand.



### New customers

Leveraging and expanding their wide customer base through large-scale marketing, third-party platforms allow restaurants to reach customers that otherwise would not have ordered from them at all. Third-party platforms offer a network of potential customers who may browse for different food options and cuisines rather than choosing to order from a specific restaurant by telephone or in person. Even for traditional local takeaways, which might offer delivery anyway, third-party platforms can increase awareness among potential customers. In Deloitte's primary research with restaurants as part of this study, some respondents noted that joining third-party platforms had allowed them to "increase the number" of new customers and to increase their "visibility in the neighborhood". Following the introduction of delivery through Uber Eats, McDonald's said that more than 70% of delivery sales were incremental for participating restaurants.



### Expansion and innovation

Third-party platforms also offer restaurants an opportunity to expand and entrepreneurs an opportunity to open new restaurants. This can include using data insights to design menus and identify opportunities to expand to kitchen-only units servicing different local areas, or exploit under-utilized space in existing restaurants. Using customer search data, for example, platforms found that cities in the UK and US had an under-provision of poke bowls, a Hawaiian dish, and supported restaurant partners and start-ups in meeting demand through new delivery-only menus. This support can take different shapes, such as accelerator programs, either in partnership with new types of businesses providing flexible kitchen spaces for virtual restaurants, through directly providing flexible spaces in areas where there is demand and inviting restaurants to open new locations, or inviting restaurants to provide new, virtual brands and delivery-only menus in their existing kitchens.<sup>37 38 39 40 41 42</sup> Uber Eats data suggests that operators with virtual restaurants in France and the UK have seen sales increase by more than 50%.<sup>43</sup>

<sup>36</sup> Business Insider, "7 reasons why McDonald's, Chipotle, and Shake Shack are embracing meal delivery — and Olive Garden isn't";

<https://markets.businessinsider.com/news/stocks/mcdonalds-shake-shack-chipotle-invest-meal-delivery-olive-garden-2019-8-1028436052>

<sup>37</sup> Financial Times, "Dark kitchens: is this the future of takeaway?"; <https://www.ft.com/content/d23c44fe-4b0b-11e7-919a-1e14ce4af89b>

<sup>38</sup> Financial Times, "The start-ups building 'dark kitchens' for Uber Eats and Deliveroo"; <https://www.ft.com/content/a66619b0-77e4-11e9-be7d-6d846537acab>

<sup>39</sup> Financial Times, "The food industry is due another revolution"; <https://www.ft.com/content/1ce0cd5a-c1b0-11e9-a8e9-296ca66511c9>

<sup>40</sup> Eater, "Uber Eats' Path to Delivery Domination: Restaurant Inception"; <https://www.eater.com/2018/10/24/18018334/uber-eats-virtual-restaurants>

<sup>41</sup> The Telegraph, "Uber Eats eyes 400 'virtual restaurants' as it takes fight to Deliveroo"; <https://www.telegraph.co.uk/technology/2018/10/15/uber-eats-eyes-400-virtual-restaurants-takes-fight-deliveroo/>

<sup>42</sup> The Spoon, "London: Uber Eats' New Restaurant Accelerator Program Will Cover "Gaps" in Food Selection"; <https://thespoon.tech/london-uber-eats-new-restaurant-accelerator-program-will-cover-gaps-in-food-selection/>

<sup>43</sup> Uber Eats sales data 2019, comparing month before launching virtual restaurant with two following months

While the benefits of third-party platforms can be additive, not all meals ordered through platforms will be incremental to the restaurant industry overall. On an aggregate level, meals ordered through third-party platforms can and will substitute for some meals that would have been ordered through other restaurant channels, such as meals consumed on-premises and meals directly ordered from a restaurant (perhaps by telephone or in-person) and consumed off-premises.

This substitution on an aggregate level can have an impact on the turnover and profits for certain restaurants. For example, as consumers are offered more food choices that can be delivered, including healthier and premium fast-food options from newer quick-service chains,<sup>44 45</sup> they may choose these at the expense of local restaurants that have traditionally offered delivered food or delivery-focused chains that have historically dominated the market.<sup>46</sup> Similarly, if consumers choose to order food for off-premises consumption instead of dining on-premises, for example because it is more convenient, this can have a negative impact on profit per meal due to differences in ordering behavior on different channels.<sup>47 48</sup> This substitution for convenience can also have a positive impact on industry profits. For example, if a consumer orders food for delivery, this does not require labor to serve the food and its associated costs, resulting in higher profit; or deliveries (including from hosting delivery-only, virtual kitchens) might dilute restaurant fixed costs, reducing overall costs per meal.

Consumers choose between dining options reflecting the specific context (e.g. the time available) and their wider preferences (e.g. the increasing preference for convenience noted earlier). If they want food for delivery (rather than deciding to eat on-the premises), and the restaurant does not offer that option, it is reasonable to expect they will often choose another restaurant that does.

It is therefore best to understand substitution as described in this report as an aggregate, industry-level phenomenon rather than an individual, restaurant-level impact. From the perspective of a restaurant, substitution due to not offering delivery services will normally mean a lost sale, rather than lost profit compared to a dine-in customer.



<sup>44</sup> Deloitte, "Changing tastes: The UK Casual Dining Market"; <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/ConsumerIndustrialProducts/deloitte-uk-casual-dining-market.pdf>

<sup>45</sup> IRI GIRA Foodservice, "1 In 5 Meals Eaten Out Of Home As European Consumers Favour Service Over Home Cooking"; <https://www.iriworldwide.com/en-GB/Insights/news/1-in-5-meals-eaten-out-of-home-as-European-consume>

<sup>46</sup> Financial Times, "Dark kitchens: is this the future of takeaway?"; <https://www.ft.com/content/d23c44fe-4b0b-11e7-919a-1e14ce4af89b>

<sup>47</sup> For example, while the cost of food sold is generally 30-35% of the price, and so provides a 65-70% margin before other costs, beverages can sell for a higher margin. If consumers order fewer drinks with their off-premise meals, this may mean fewer higher-margin items sold overall as well as the added cost of delivery.

<sup>48</sup> Wall Street Journal, "Consumers Love Food Delivery. Restaurants and Grocers Hate It."; <https://www.wsj.com/articles/consumers-love-food-delivery-restaurants-and-grocers-hate-it-11552107610>



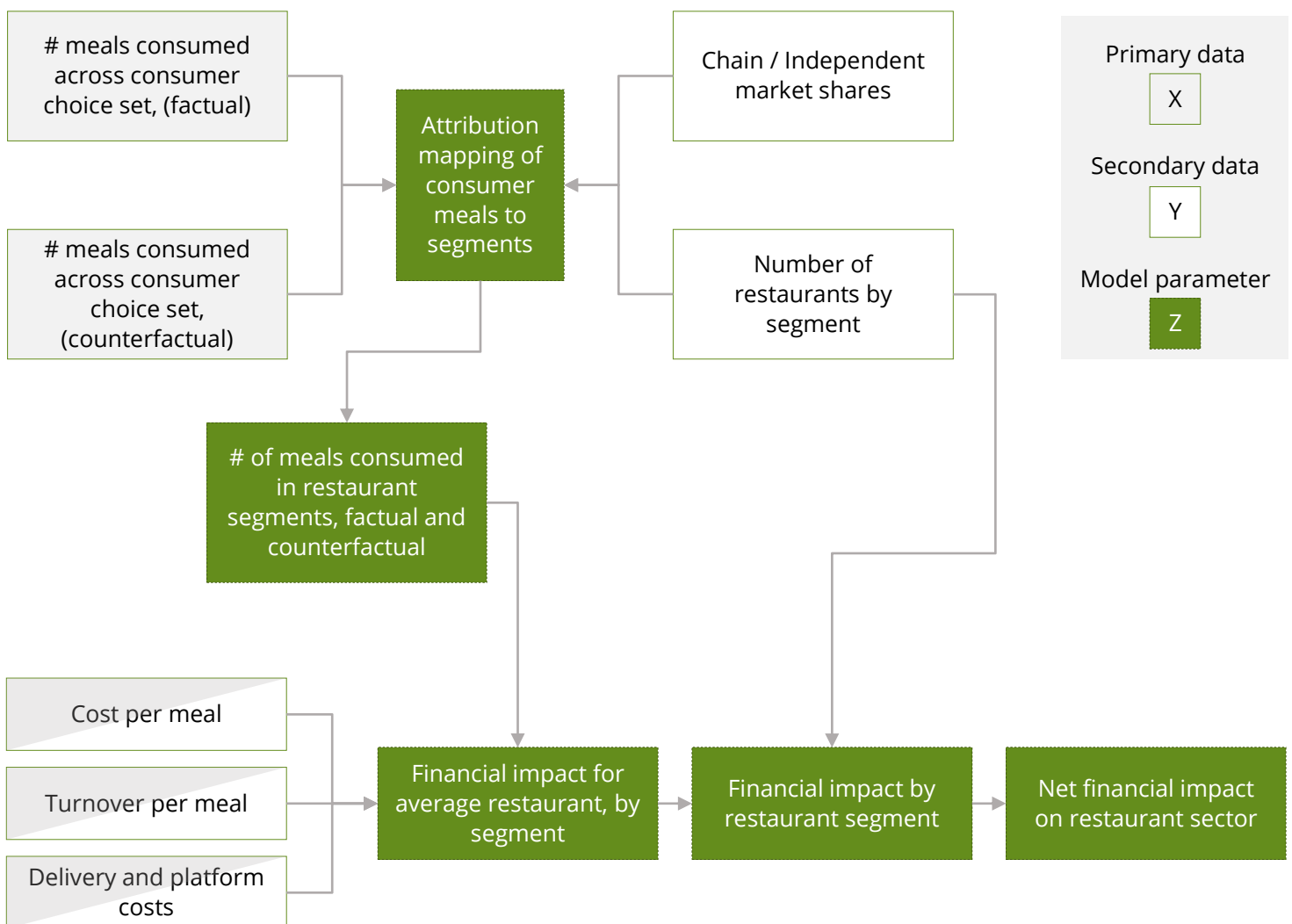
### 3. Impacts on restaurants in selected cities

This study examines the impact third-party platforms have on the restaurant industry looking at London, Paris, Madrid, and Warsaw in particular.

It does this by first considering the situations in which consumers choose to order from third-party platforms, and what they would do in these situations in a world where third-party platforms do not exist, keeping all else constant. Using this understanding of consumption behavior in the actual outturn, where consumers can use third-party platforms, and the counterfactual scenario, where third-party platforms are unavailable, the study links the resulting consumption landscapes to restaurant finances. It estimates the impact third-party platforms have had on the restaurant industry based on the difference between total turnover and profit for each channel in the two scenarios, aggregated to get an overall net impact.

As such, this study's approach is to develop an understanding of how the demand side (i.e. consumer preferences about where they get their food) impacts the supply side (i.e. restaurant finances) in an illustrative, counterfactual analysis.<sup>49 50</sup> This section presents an overview of the approach and the results of the analysis. Further detail on the approach are included in the Appendix.

**Figure 5: Overview of the study's analytical approach**



*Further information on the analytical approach is provided in the Appendix.*

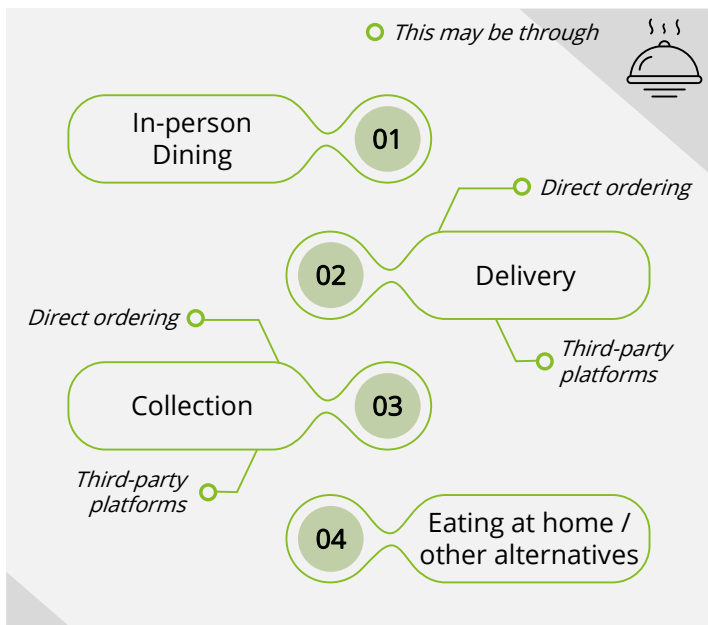
<sup>49</sup> This study controls for differences in consumer behavior by age demographics. However, it does not consider how behavior may vary by other demographic factors, such as socio-economics, due to limitations of data.

<sup>50</sup> Impacts on other food-related sectors, such as groceries and the restaurant supply chain, are not studied in this report.

### 3.1 Analytical approach

To appropriately identify the current landscape of consumption behavior and how it changes in the counterfactual scenario, a survey of 500 consumers was undertaken in each of the four cities. This survey was designed to identify consumer preferences in the factual and counterfactual scenarios over the different channels through which they can order or obtain food (the 'consumer choice set'). This consumer choice set is outlined in Figure 6.

Figure 6: Consumer choice set for purchasing food

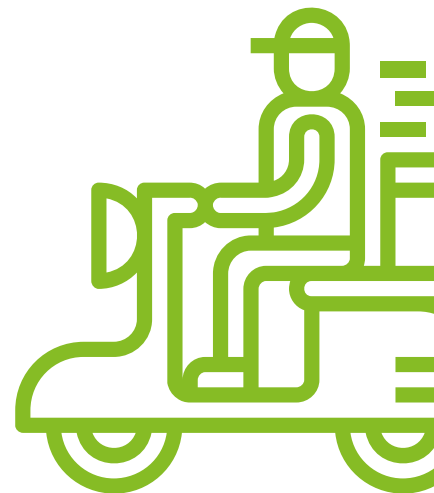


To estimate the current consumption landscape, and exploit the variation in the sample size, respondents were asked to state the number of meals<sup>51</sup> consumed under each header in the consumer choice set in the last seven days. This generated the distribution of meals by channel in the factual scenario, including the number of meals ordered using third-party platforms.<sup>52</sup>

Respondents who stated they had used third-party platforms in the last seven days were then presented with five generalized scenarios and asked if any of these applied when they had ordered a meal using the third-party platform. The scenarios were designed to be mutually exclusive, and together cover all potential situations where someone would order using a platform (see Figure 7).

Using this approach, respondents could contextualize their responses within the particular, recent situation where they had used a third-party platform, and could consider the circumstances for what they would have done in the counterfactual scenario with as much clarity as possible.

Respondents were therefore asked how they would have ordered a meal if third-party platforms were not available in each of the recent scenarios, with options being dining on-premises at a restaurant, ordering a meal for off-premises consumption directly from a restaurant, or another option outside the restaurant sector such as cooking their own meal (see Figure 7). Combined with their responses on frequency of meals through other channels, this generated the distribution of meals by channel consumed in the counterfactual scenario, now excluding meals ordered through third-party platforms entirely.



<sup>51</sup> Meals are defined in this study as a single sitting of eating food. Therefore while a meal in each channel can substitute for another, this does not imply that the same amount of food is consumed. For example, a meal at a restaurant may comprise of a 2-course or 3-course meal, while a meal at home may include only one course.  
<sup>52</sup> Surveys results were scaled and weighted by the population age distribution in the respective cities.

Figure 7: Overview of scenario-based consumer choice survey

Scenarios where consumers may use a third-party platforms:



Consumers who have used third-party platforms in the last 7 days are asked if these scenarios apply to them. If a scenario applies to them, they are asked to identify what they would have done if third-party platforms were not available in that scenario

Counterfactual where third-party platforms are unavailable:

*"If the third-party platform was not available in this scenario, what would you have done instead?"*

1. Dined on-premised at a restaurant
2. Ordered delivery food directly from a restaurant
3. Ordered food directly from a restaurant and collected it
4. Something else, e.g. cooked food at home, purchased pre-prepared food from a supermarket, etc.

Note: Respondents were also asked if any 'Other' scenarios occurred where they had ordered using a third-party platform

The top line findings (illustrated below in Figures 8 and 9) are that:

- **Third-party platforms grow the restaurant sector:** Around 20% of meals ordered through third-party platforms represent growth in the restaurant industry in London, Paris and Warsaw, as additional meals are being eaten from restaurants overall versus the counterfactual.<sup>53</sup> In Madrid, this is lower at 12%. Existing analysis suggests that platforms which facilitate delivery are particularly likely to grow the market.<sup>54</sup> According to the Uber Eats survey mentioned earlier, the share of restaurants on its platform that reported an overall increase in sales after joining was 69% in London, 74% in Paris, and 67% in Warsaw, with this slightly lower at 59% in Madrid .
- **Third-party platforms also provide a new means for customers to satisfy their existing demand for food delivery:** 40-56% of meals ordered through third-party platforms are substitutes for non-platform delivery orders (e.g. phone calls, or chain-specific websites). This means, because of the wider variety and more premium food options offered,

that the restaurants that have never offered delivery before are likely to see a much larger increase in incremental orders than those who have traditionally offered takeaway services.

- **Substitution for collection and on-premises consumption is more limited:** 12-21% of meals would have been ordered and consumed on premises. 11-19% of meals would otherwise have been non-platform collection orders.

These city level results are generally consistent across age groups. Broadly, 18 to 39 year olds and 40 to 59 year olds tend to substitute away from ordering delivery directly from the restaurant. The substitution patterns for the over 60s differ more by city. In Madrid and Paris, older consumers are generally substituting away from dining on-premises. In Warsaw, older consumers are mostly substituting meals consumed from outside the restaurant sector. In London, most of the impact is substitution away from ordering delivery directly from the restaurant.

<sup>53</sup> This is represented by the "Eating at home and other non-restaurant meals" category being referred to in Figure 9, which represents the meals being consumed from outside of the restaurant industry.

<sup>54</sup>

<https://www.mckinsey.com/~/media/McKinsey/Industries/Technology%20Media%20and%20Telecommunications/High%20Tech/Our%20Insights/The%20changing%20market%20for%20food%20delivery/The-changing-market-for-food-delivery-final.ashx>

Figure 8: Changes in the meals landscape due to the introduction of third-party platforms

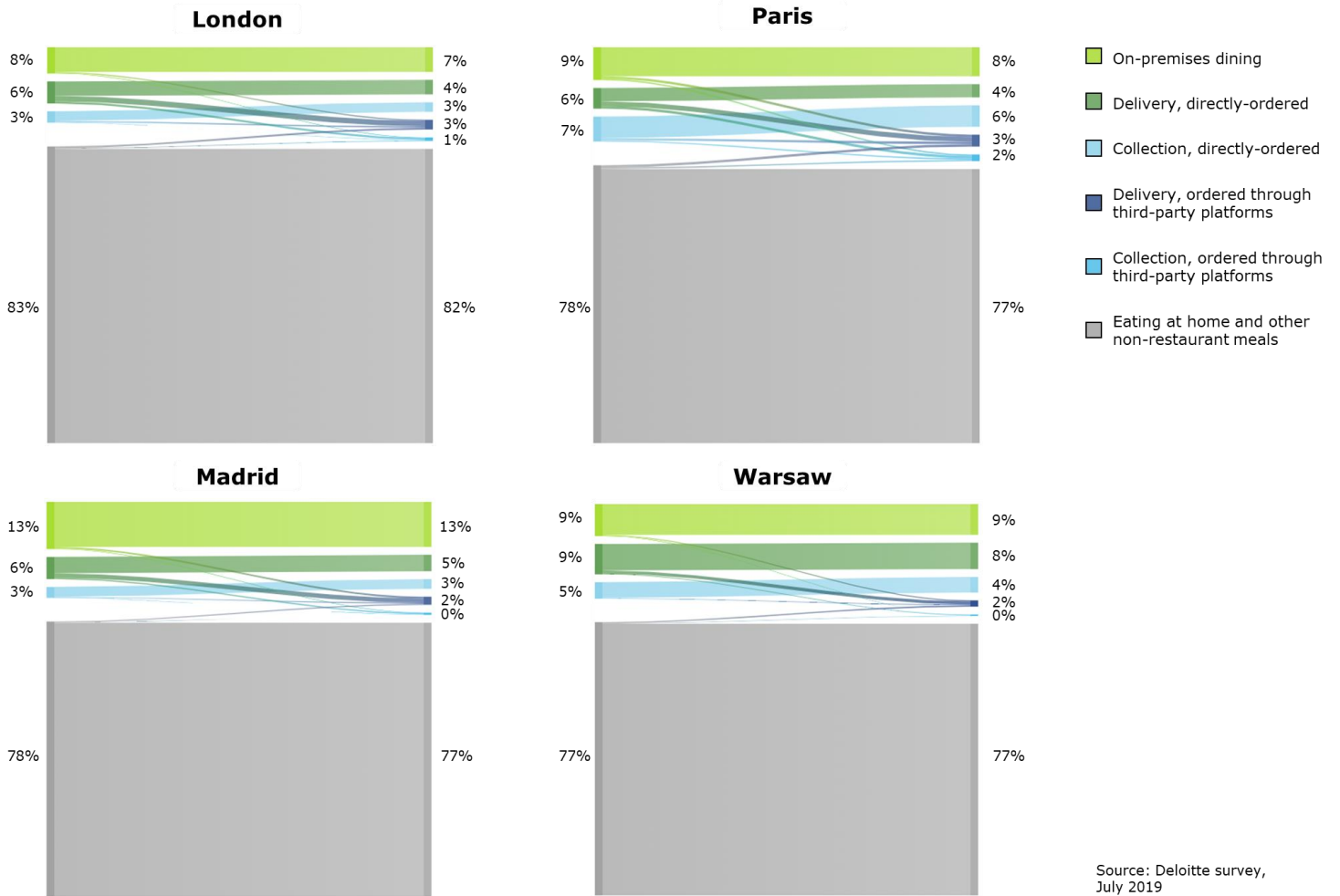
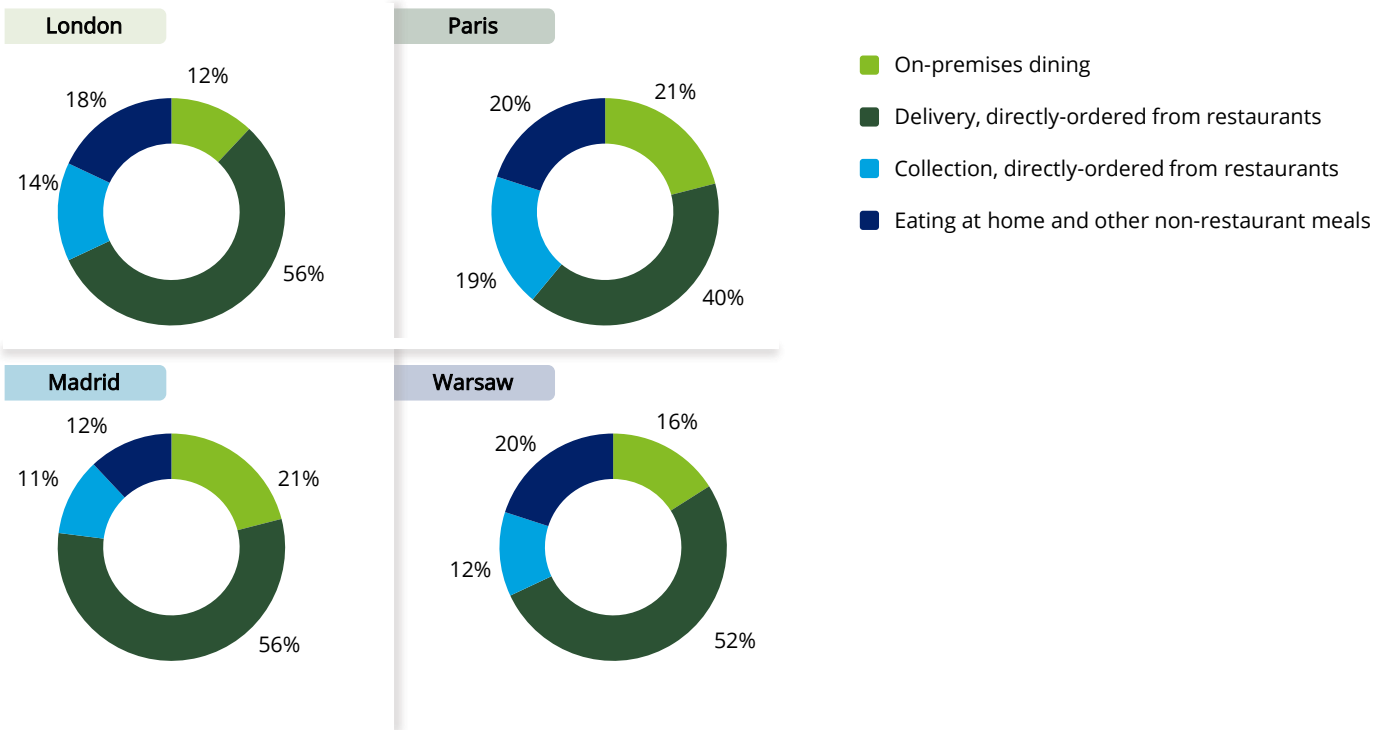


Figure 9: What third-party platform meals are substituting for



Source: Deloitte survey, July 2019.

### 3.2 Impacts on aggregate demand for restaurant meals

Table 1 presents weekly aggregate demand for each city. For all cities, the total number of meals have increased. This results from consumers eating proportionately fewer non-restaurant meals, and instead purchasing more meals from restaurants via third-party platforms versus the counterfactual.

In numbers of meals, this results in aggregate demand for restaurants increasing by 4.7% in Paris and by 4.1% in London. This increase is slightly lower at 1.9% in Warsaw and 1.5% in Madrid, driven by lower overall usage of third-party platforms (off-premises meals ordered through third-party platforms account for 2% of all meals in each of these cities, compared to 5% in Paris and 4% in London; see Figure 8).<sup>55</sup>

Table 1: Aggregate demand for restaurant meals, thousands weekly

City	Factual	Counterfactual	Difference	% change
London	23,330	22,420	910	4.06%
Paris	7,934	7,578	356	4.69%
Madrid	11,803	11,626	176	1.52%
Warsaw	6,478	6,355	123	1.93%

Source: Deloitte analysis

<sup>55</sup> This has been calculated as the difference between both states of the world over the counterfactual aggregate demand.



This increase in demand is likely to be unequally distributed across different types of restaurants. Restaurants that sign up for third-party platforms would see a higher share of the increase in demand, while restaurants that do not would likely see a reduction in demand. This is because (as discussed in Section 2) the former would be better able to respond to increasing consumer preferences for convenience, while the latter would see consumers that are seeking a convenient option choose alternatives. Some restaurants might see reductions in demand, if for example:

- They do not offer delivery and therefore do not see the upside to third-party platforms; or
- They previously operated in a market where few other restaurants were able to offer delivery and this was a barrier for competitors that otherwise offered a more attractive proposition to consumers.

### 3.3 Net impacts on restaurant financials

The impacts of these changes in consumption on restaurant finances is estimated based on research into the turnover and costs for each segment.<sup>56</sup> This provides a view, for each city, on:

- The average spend per type of meal (accounting for average prices and amount of food and beverages consumed in different settings).
- The average costs per type of meal (including cost of goods sold, labor, and delivery if applicable).

Together, these allow for estimation of the average profit per meal, by type of meal, in each city. Tables 2-5 present the resulting estimates for net turnover and profit impacts across all four cities.

As stated before, the totals are net across a diverse set of impacts at the individual restaurant level, which, reflecting the impacts on demand for meals, are driven in large part by whether restaurants participate in third-party platforms. Given the consumer trend toward convenient food options, restaurants that join the third-party platforms and serve meals for off-premises consumption would have a higher portion of the additional turnover and profits while those who do not would have a lower share.

There is a net increase impact on turnover in each city's restaurant industry (see Table 2).

**Table 2:** Industry-level net impacts on turnover, weekly and annual (thousands)

	London, £	Paris, €	Madrid, €	Warsaw, zł
<b>Weekly</b>	6,214	1,816	448	2,116
<b>Annual</b>	323,120	94,408	23,298	110,032
<b>Increase</b>	1.43%	1.15%	0.26%	0.96%

Source: Deloitte analysis

Similarly, profits shift in a similar manner to turnover, with the overall net impact again positive across all four cities. London sees the highest increases in turnover and profit for the industry, both in absolute and proportionate terms. Across the industry, restaurants' profits are increased by £189 million (€213 million) annually, or 2.82%, due to the introduction of third-party platforms. In the other cities, profits increase by €18 million (0.64%) in Paris; €36 million (1.29%) in Madrid; and 46 million zł (€11 million; 1.23%) in Warsaw.<sup>57</sup>

<sup>56</sup> Estimates were developed through a combination of primary research, third-party data sources, and subject matter experts. For a more detailed explanation of the methodology and sources, please refer to the Appendix.

<sup>57</sup> The greater increase in aggregate net impacts on profit relative to turnover in Madrid is driven by the relatively lower rate of substitution by meals ordered through third-party platforms for non-restaurant sector meals (see Figure 9). As a result of this, turnover increases from growth in the restaurant sector are more limited and counteracted by the decrease in turnover per meal due to substitution from on-premises dining to collection and delivery meals. Meanwhile, relatively more meals substitute lower-margin direct deliveries for higher-margin third-party deliveries, resulting in an overall larger net increase in total industry profits despite a not as significant net increase in turnover.





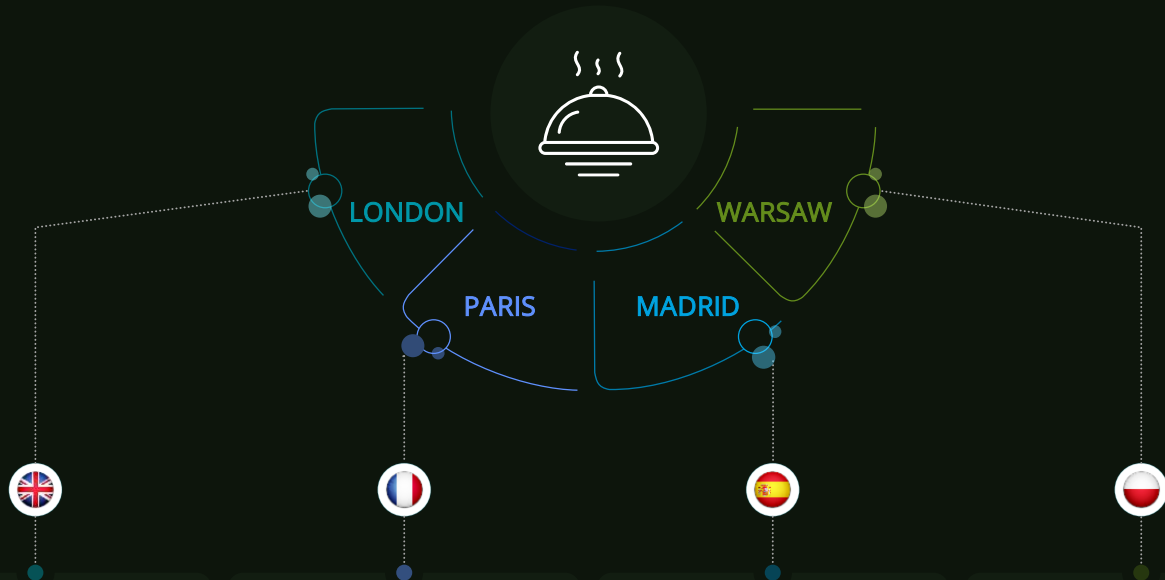
**Table 4: Industry-level net impacts on profit, weekly and annual (thousands)**

	London, £	Paris, €	Madrid, €	Warsaw, zł
Weekly	3,628	350	687	875
Annual	188,659	18,202	35,771	45,518
Increase	2.82%	0.64%	1.29%	1.23%

Source: Deloitte analysis

### 3.4 Summary impacts

In summary, after accounting for substitution within the sector as well as the increase in overall meals eaten within the sector, this analysis finds the impacts of third-party platforms on the selected cities versus the counterfactual to be:



- An overall increase of 4.1% in the number of meals purchased from restaurants.
- An increase of £323 million in turnover across the restaurant industry.
- An increase of £189 million in profit across the restaurant industry.

- An overall increase of 4.7% in the number of meals purchased from restaurants.
- An increase of €94 million in turnover across the restaurant industry.
- An increase of €18 million in profit across the restaurant industry.

- An overall increase of 1.5% in the number of meals purchased from restaurants.
- An increase of €23 million in turnover across the restaurant industry.
- An increase of €36 million in profit across the restaurant industry.

- An overall increase of 1.9% in the number of meals purchased from restaurants.
- An increase of 110 million zł in turnover across the restaurant industry.
- An increase of 46 million zł in profit across the restaurant industry.

## 4. Conclusions



This report finds that third-party platforms have benefited the restaurant sector as a whole, increasing turnover and profit.

The analysis demonstrates the net impact third-party platforms have had in the four selected cities with different economies and degrees of third-party platform usage. Similar cities may also be expected to have similar impacts to those presented here, once controlling for economic factors and penetration of third-party platforms.

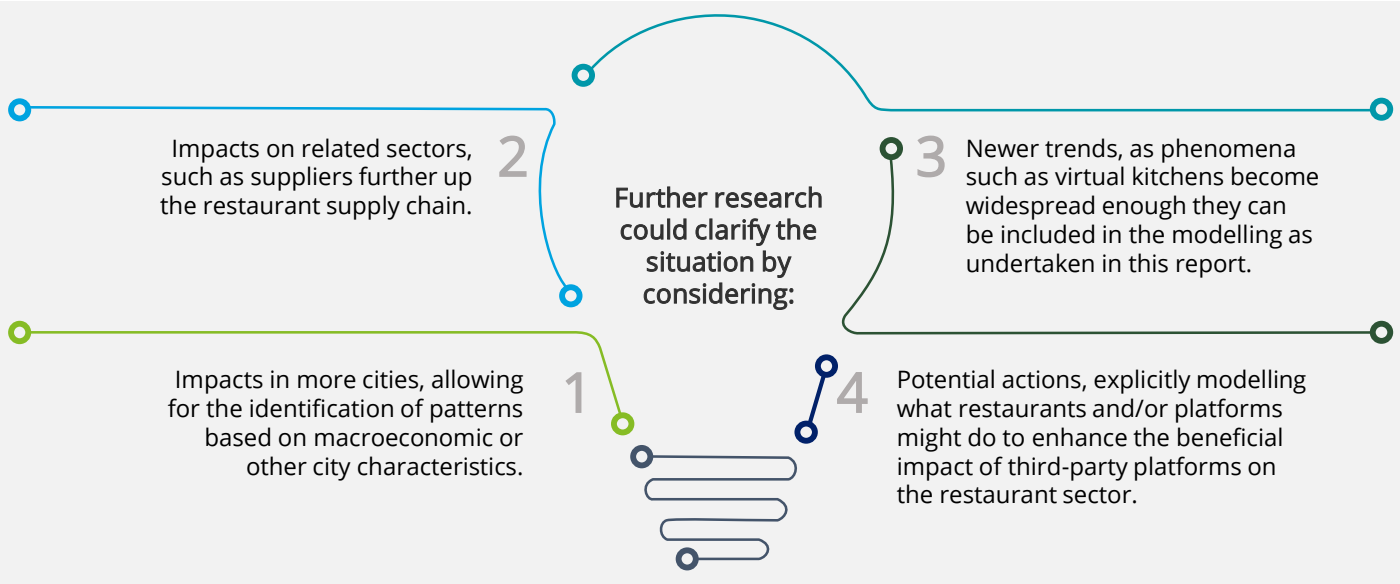
Broadly, the estimates reflect that, because consumer demand for restaurant meals is elastic based on situational preferences (as well as prices), improvement in the consumer proposition, including through the convenience and choice offered by third-party platforms, will increase sales, and often profit. Consequently, this results in net growth in the restaurant sector in each of the four cities, as demonstrated by the increase in demand for food from restaurants at the expense of sectors outside the restaurant industry.

These impacts are not likely to be equally distributed, however. Restaurants that sign up for third-party platforms are likely to be better able to benefit from shifts in consumer preferences and demand, while some of those that do not may see lower turnover and profit.

This might particularly be the case for traditional delivery providers that operated in a market where few other restaurants were able to do so, due to barriers for competitors that would otherwise have offered more attractive dining options to consumers.

The positive overall result also does not mean that third-party platforms cannot do more to improve outcomes in the restaurant sector. Over time, the growth of currently nascent services like virtual kitchens might provide additional dining options for consumers and means of utilizing capacity for restaurants, for example. Additionally, while this report finds that platforms increase the growth of the restaurant sector, growth in the restaurant sector will also tend to benefit platforms due to greater demand for the additional dining options.

The results in this report imply that third-party platforms should already be understood as improving the economic position of the restaurant sector overall, increasing turnover and to a lesser extent profits, versus a scenario in which such platforms do not exist. This impact will affect how the restaurant sector grows over time, alongside cyclical pressures, consumer tastes, and other factors contributing to market trends

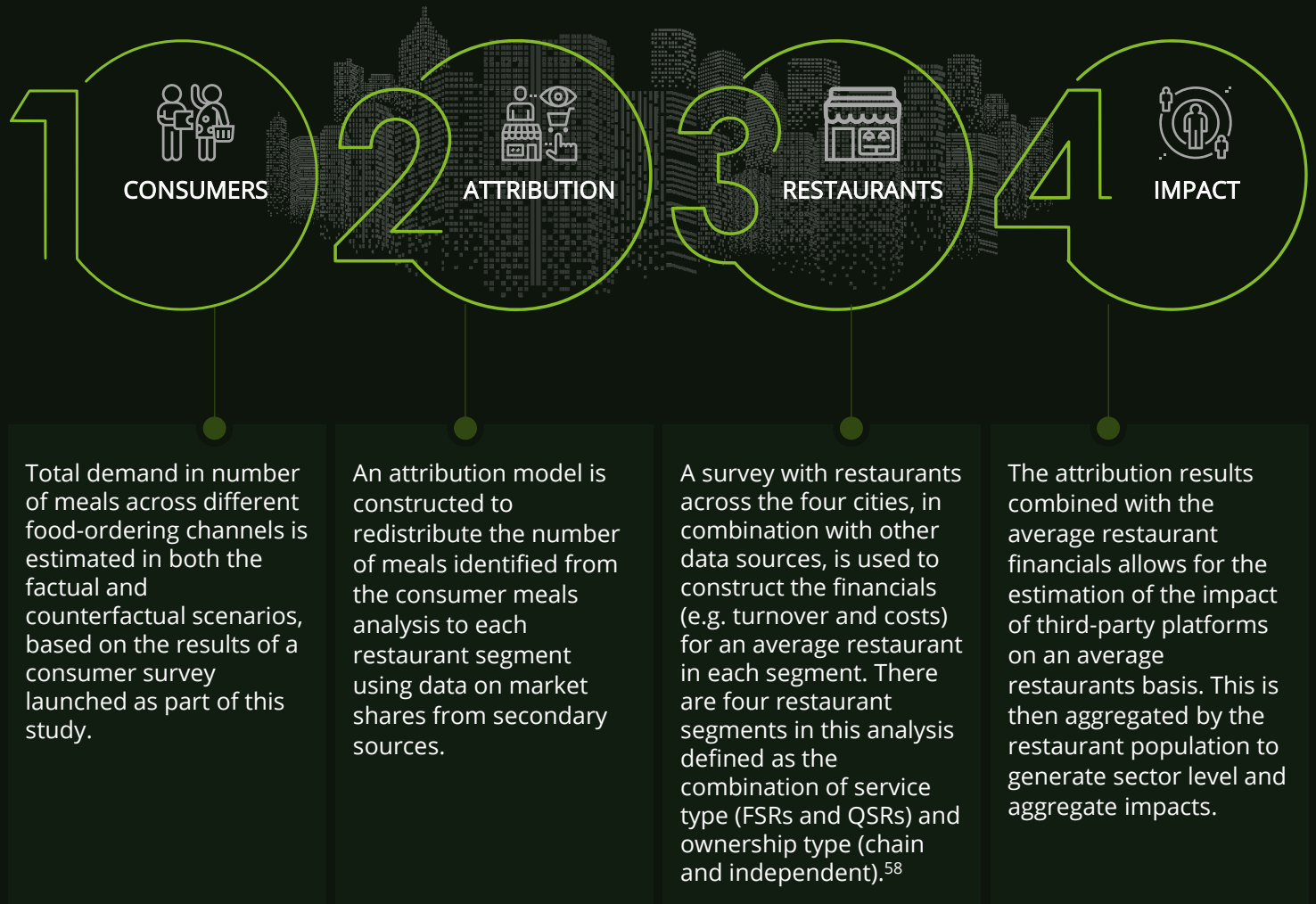


Overall, this report provides helpful context to the ongoing discourse around the impact of third-party platforms and the future of a healthy restaurant sector.

# Appendix: Analytical method

The objective of this study is to quantify the impact of third-party platforms on the restaurant industry in London, Paris, Madrid, and Warsaw. This impact is estimated by constructing a 'counterfactual' scenario, i.e. where third-party platforms do not exist, and comparing this to the 'factual' scenario, i.e. the current state of the market with third-party platforms available. An overview of the analytical approach can be seen in Figure 1.

This can be summarized in four broad steps for each city:

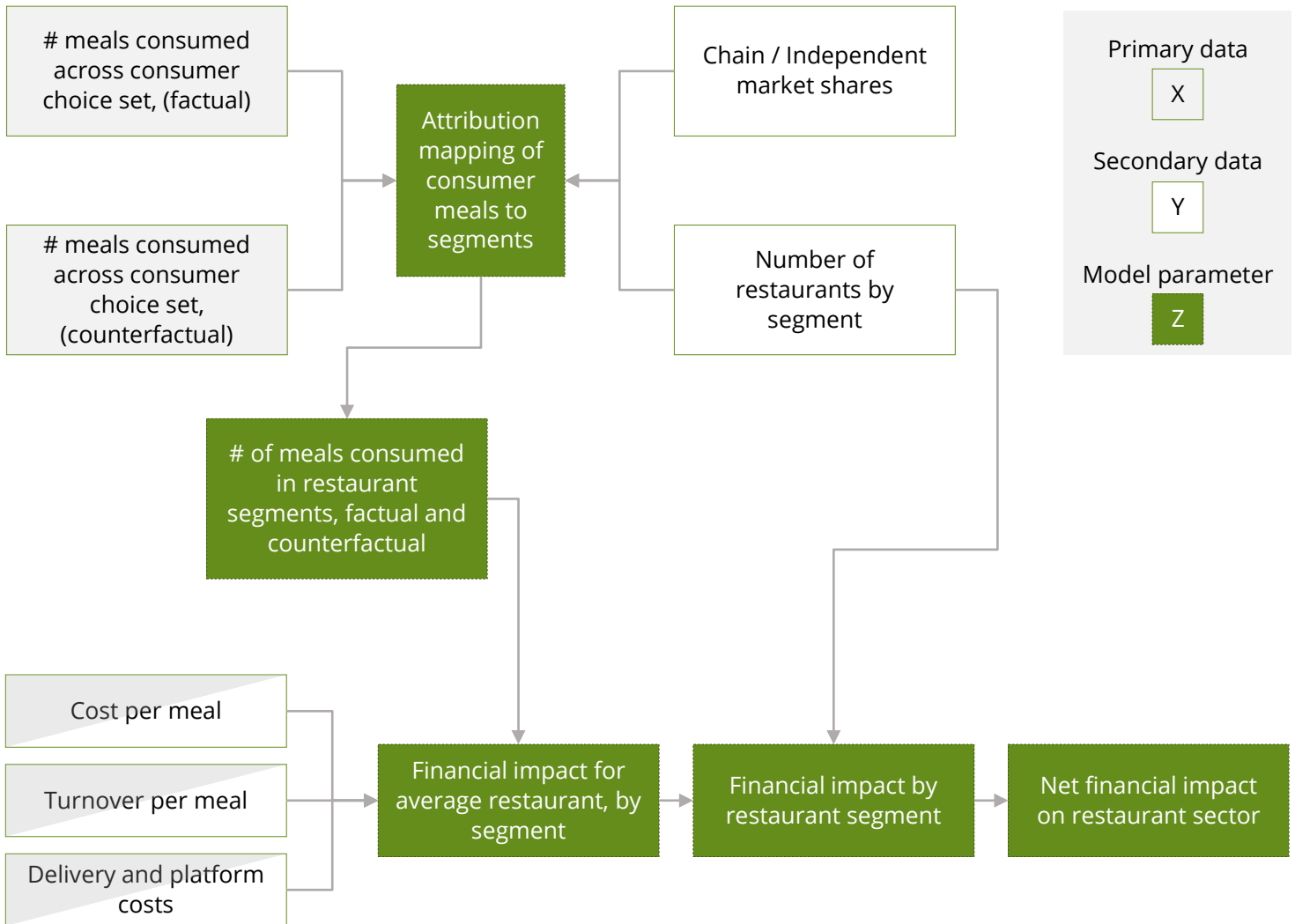


The study is based on a number of data sources including secondary sources (referenced where applicable below) and primary research with consumers and restaurants. The results and estimates presented in this report are reliant on the accuracy of responses from restaurants and consumers, and Deloitte cannot assure the accuracy of those results.

The rest of this section describes the analytical methodology in detail, including the data gathering and survey approaches, the attribution modelling, and impacts estimation approach.

<sup>58</sup> There are four restaurant segments in this analysis defined as the combination of service type (FSRs and QSRs) and ownership type (chain and independent).

Figure 10: Overview of the study's analytical approach

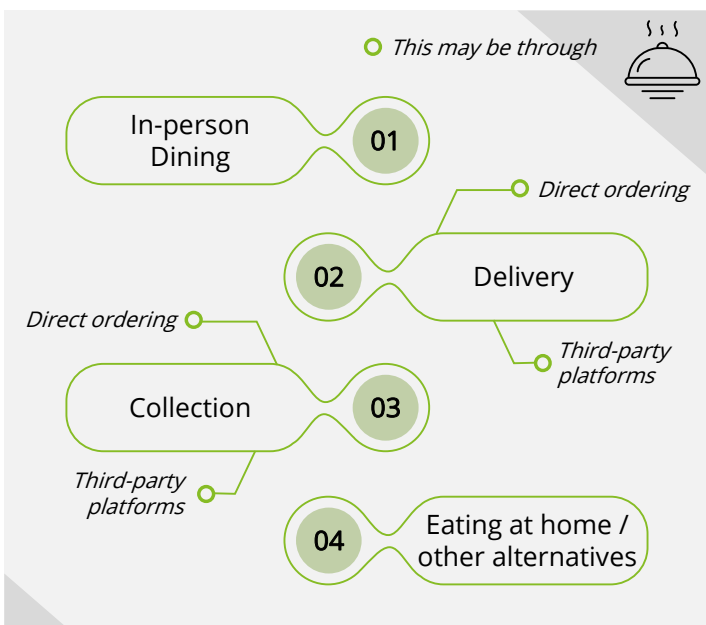


### Consumer choice

In order to estimate the impact of third-party platforms on the restaurant sector it is crucial to understand how the existence of third-party platforms has affected the decision making of consumers, both in terms of how they procure their meals and how often. The consumer choice sets in the counterfactual (with no third-party platforms available) and factual scenarios (the existing world) are as follows:

- In the counterfactual scenario, consumers can choose to dine on-premises at a restaurant, order a meal for delivery or collection directly from a restaurant, or get meals from outside the restaurant industry (e.g. cooking, ready meals etc.).
- In the factual scenario, consumers have the same options as the counterfactual scenario with the addition of the ability to order meals for delivery or collection via third-party platforms. Figure 11 below provides an overview of this consumer choice set.

**Figure 11: Consumer choice set for purchasing food**



**Table 6: Demographic summary of consumer survey respondents by city**

City	Gender	Age Groups			Sub Total	Total
		18-39	40-59	60+		
Paris	Male	130	50	11	191	431
	Female	124	90	26	240	
London	Male	90	88	29	207	428
	Female	154	53	14	221	
Madrid	Male	106	70	12	188	428
	Female	139	89	12	240	
Warsaw	Male	101	99	10	210	478
	Female	185	71	12	268	

Source: Primary research and Deloitte analysis

To understand how the existence of third-party platforms has affected consumers' decision making, a survey was designed with the primary aim of eliciting the differences in consumer preferences for meals in the two scenarios. This is then used to estimate a total demand for meals across different channels for each city in both the factual and counterfactual scenarios.

For each of the four cities the survey was sent to a sample of consumers aged 18 and over. A response of 500 consumers from each city was received.<sup>59</sup> However, a number of responses were dropped due to incomplete answers. Table 6 presents the final distribution of age and gender across the four cities, and the total number of responses used.

In the survey, respondents were asked to state how many meals they had consumed in the last seven days by channel (see Table 7).<sup>60</sup> Meals are defined in this study as a single sitting of eating food.<sup>61</sup> Respondents who stated that they had used third-party platforms in the last seven days were then presented with a follow up question and asked to determine what proportion of the off-premises meals for delivery and collection respectively were purchased using a third-party platform, with this defined for them by reference of relevant local examples. This allowed for the determination of the number of meals by channel for each respondent.

<sup>59</sup> Consumers across the four cities were sampled through Deloitte Pixel, a crowdsourcing survey platform. 500 respondents were targeted in each city, resulting in a 4.5% confidence interval at a 95% confidence level.

<sup>60</sup> The seven-day timeframe was chosen to allow participants to more easily and accurately recall their activities for contextualization of the alternative they would have chosen in the counterfactual scenario.

<sup>61</sup> Therefore, while a meal in each channel can substitute for another, this does not imply that the same amount of food is consumed. For example, a meal at a restaurant may comprise of a 2-course or 3-course meal, while a meal at home may include only one course.

**Table 7:** Consumer survey factual meal preference question

In the last 7 days, how many meals have you had from the following sources? (Note: average number of meals assuming breakfast, lunch and dinner is 21 meals per week)	
Dine-in e.g. on-premises at a restaurant (#)	[Enter Number]
Delivered meal (#)	[Enter Number]
Meal collected from a restaurant and eaten off-premises (#)	[Enter Number]
Other e.g. cooked meal, ready meal, supermarket etc. (#)	[Enter Number]

To determine the counterfactual behavior, for those respondents who identified as having ordered through a third-party platform in the last seven days, five generalized scenarios were presented and respondents were asked if any of these applied when they had ordered a meal using the third-party platform (see Table 8 for an example). The scenarios were designed to be mutually exclusive and cover a range of scenarios commonly encountered to assist in contextualizing answers.<sup>62</sup>

**Table 8:** Consumer scenario question example

In the last 7 days, did you use a third-party platform to order food when you were working late or didn't have a chance to eat due to work?	
Yes	[ ]
No	[ ]

If a respondent answered yes, they were then presented with a question asking them what they would have done if the third-party platform was not available (see Table 9 for an example).

**Table 9:** Consumer counterfactual question example

If the third-party platform were not available in this scenario, where would you source your meals from instead?	
Dine-in e.g. restaurant	[ ]
Delivery meal, ordered directly from a restaurant	[ ]
Meal collected from a restaurant and eaten off-premises, ordered directly from a restaurant	[ ]
Other e.g. home cooked meal, ready meal, supermarket etc.	[ ]

To generate the total number of meals in the factual and counterfactual scenarios for each city respectively, the consumer meals preferences for both those who use and do not use third-party platforms in the last seven days are combined in each scenario. To do so, a representative consumer is calculated for three age groups for both those who used third-party platforms in the last seven days and for those who did not.<sup>63</sup> For those who used third-party platforms, the representative consumer has two distributions of meals: one for the factual scenario, and another for the counterfactual scenario without third-party platforms. For those who did not use third-party platforms in the last seven days, the representative consumer has the same distribution of meals in both scenarios.

The representative consumers are then scaled up using demographic statistics by age group for each city respectively, based on data from the respective local and national statistics agencies.<sup>64</sup> Table 10 to Table 13 present the aggregate representative consumer for each city, created as a weighted average from the three age groups for both those who used and did not use third-party platforms in the last seven days. This generated the total number of meals in the factual and counterfactual scenario for each city.<sup>65</sup>

<sup>62</sup> The scenarios included 'social occasion (e.g. spending time with friends and/or family)', 'outside normal hours (e.g. after a late night out)', 'time constrained (e.g. providing care for someone)', and 'as a treat or out of convenience in any other situation'.

<sup>63</sup> The three age groups were 18-39, 40-59, and 60+.

<sup>64</sup> These are: the UK's Office for National Statistics (ONS) for London; L'Institut national de la statistique et des études économiques (Insee) for Paris; Madrid City Council for Madrid; and Statistics Poland for Warsaw.

<sup>65</sup> An adjustment was made to increase the number of meals eaten outside the restaurant industry (i.e. in the 'other' category) to ensure that the aggregate number of meals per week was in line with expectations and secondary sources on eating behavior. This did not have any impact on the study's results.



**Table 10:** Aggregate representative consumer, weekly meals, London

	Delivered meal			Collected meal		
	On-premises	Directly ordered	Third-party platform ordered	Directly ordered	Third-party platform ordered	Other
<b>Factual meals</b>	1.35	0.79	0.53	0.52	0.20	16.05
<b>Counterfactual meals</b>	1.43	1.20	0	0.62	0	16.18

Source: Deloitte analysis

**Table 11:** Aggregate representative consumer, weekly meals, Paris

	Delivered meal			Collected meal		
	On-premises	Directly ordered	Third-party platform ordered	Directly ordered	Third-party platform ordered	Other
<b>Factual meals</b>	1.58	0.72	0.64	1.17	0.36	14.95
<b>Counterfactual meals</b>	1.79	1.13	0	1.36	0	15.16

Source: Deloitte analysis

**Table 12:** Aggregate representative consumer, weekly meals, Madrid

	Delivered meal			Collected meal		
	On-premises	Directly ordered	Third-party platform ordered	Directly ordered	Third-party platform ordered	Other
<b>Factual meals</b>	2.47	0.90	0.44	0.53	0.12	14.98
<b>Counterfactual meals</b>	2.58	1.21	0	0.60	0	15.04

Source: Deloitte analysis

**Table 13:** Aggregate representative consumer, weekly meals, Warsaw

	Delivered meal			Collected meal		
	On-premises	Directly ordered	Third-party platform ordered	Directly ordered	Third-party platform ordered	Other
<b>Factual meals</b>	1.70	1.46	0.34	0.87	0.08	15.00
<b>Counterfactual meals</b>	1.76	1.68	0	0.92	0	15.08

Source: Deloitte analysis



### Attribution

Following determination of the distribution of consumer meals, the meals are then categorized into each of the four restaurant sub-segments, which make up the two larger chain and independent segments for which results are reported (see Figure 12). This ensures that each restaurant sub-segment (as determined by ownership type) is correctly attributed its share of meals purchased by consumers, and the appropriate cost structures for those meals is then applied.<sup>66</sup> This is simplified where necessary, for example with attribution using existing market shares for chain and independent restaurants to distribute different types of meals.

Given the lack of a single source for market shares across the segments, the attribution model uses a combination of market share data from a number of sources, combining where necessary to develop market share parameters. Sources include:

- Local and national statistics on the number of enterprises in a city's geographic area.<sup>67</sup>
- Business count and turnover data purchased from MailingListsXpress UK.
- Market reports and data.<sup>68</sup>
- Proprietary Deloitte data from LocationEdge.<sup>69</sup>

This is combined with primary data on the proportion of food turnover by channel from the restaurants surveys to calculate market shares by channel type (i.e. by whether food is sold for on-premises consumption, ordered for off-premises consumption directly, or ordered through a third-party platform for off-premises consumption), with the shares applied to the number of meals to redistribute these across the sub-segments.

On-premises meals are allocated between chain and independent FSRs only using turnover market share data (i.e. QSRs are assumed to not serve on-premises meals for the purposes of the analysis).

Figure 12: Consumer choice set mapping to restaurant segment

<i>Consumer Choice Set</i>	<i>Restaurant Segmentation</i>	
On-premises dining	Chain	Independent
Delivery, directly-ordered from restaurants	On-premises dining	On-premises dining
Collection, directly-ordered from restaurants	Delivery, directly-ordered from restaurants	Delivery, directly-ordered from restaurants
Delivery, ordered through third-party platforms	Collection, directly-ordered from restaurants	Collection, directly-ordered from restaurants
Collection, ordered through third-party platforms	Delivery, ordered through third-party platforms	Delivery, ordered through third-party platforms
Eating at home and other non-restaurant meals	Collection, ordered through third-party platforms	Collection, ordered through third-party platforms

<sup>66</sup> As 'Other' refers to meals eating outside of the restaurant sector, these do not undergo redistribution.

<sup>67</sup> These are: UK Office for National Statistics; London Datastore; AcoSS; Paris City Hall; Ayuntamiento de Madrid; and Statistics Poland.

<sup>68</sup> These are: PMR's "HoReCa market in Poland 2016" and APUR's "Les réseaux commerciaux à Paris - Poids des réseaux en 2017 / Évolutions 2014-2017".

<sup>69</sup> For further information, see: <https://www2.deloitte.com/uk/en/pages/consumer-industrial-products/solutions/locationedge.html>



### Restaurant sales and impacts

To determine the financial impact of third-party platforms, an estimate of average turnover and average costs per meal, per channel for each sub-segment across the four cities is estimated. This was based on primary and secondary data on average spend by customers, consumption behavior by channel, prices, and the costs incurred by the businesses in preparing and serving a meal.

Average turnover per meal is derived from the average spend on food, alcoholic drinks, and non-alcoholic drinks per meal by channel (see Figure 13), based on average food spend per meal and average number of alcoholic and non-alcoholic drinks consumed per meal. Average spend and prices per segment are derived from the restaurants surveys for Paris, with a consistent approach utilized to adjust figures for other cities based on cost of living adjustment factors and currency conversion where appropriate.<sup>70</sup> The average number of drinks consumed per meal is sourced from the consumer survey.

**Figure 13: Average turnover per meal calculation**



Average cost per meal is comprised of food and drinks stock cost, staff costs, and delivery costs (see Figure 14). Food and drinks costs are derived from applying general industry cost of goods sold (“COGS”) as a percentage of prices. Table 14 below presents the COGS percentages used.

**Table 14: COGS as a percentage of price of food and drink**

	Chain	Independent
Food, COGS	30%	33%
Alcoholic drinks, COGS	30%	30%
Non-alcoholic drinks, COGS	10%	10%

Source: Primary research with restaurants and subject matter experts cross-checked with secondary sources where available

Staff costs are made up of two components: front of house staff and kitchen staff. Depending on the type of meal ordered, a different combination of staff is generally required to produce and serve a meal. This has staff cost implications when calculating the average staff cost per meal. To develop these costs, generalized labor costs as a percentage of restaurant turnover of 20% was applied for off-premises meals, 30% for chain restaurants’ on-premises meals and 40% for independent restaurants’ on-premises meals.<sup>71</sup>

**Figure 14: High-level average cost calculation**



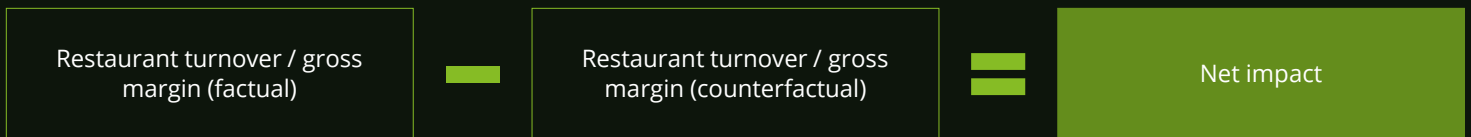
<sup>70</sup> Numbeo Cost of Living, <https://www.numbeo.com/cost-of-living/>. Data used accurate as of the 12th August 2019.

<sup>71</sup> These figures were sourced from primary research with restaurants and subject matter experts cross-checked with secondary sources where available.

Delivery costs are developed through a combination of the restaurant survey, primary research with restaurants, and engagement with subject matter experts. Third-party platform costs are set at 25% of turnover per meal for delivery meals and 15% for collection meals. For directly-ordered and fulfilled deliveries, costs were set at 1.5 times the cost of third-party platform delivery costs for chain restaurants and independent FSRs and the same as third-party platform delivery costs for independent QSRs, based on insights from industry experts. Sensitivity analysis to equalize delivery costs found that results were generally similar with the exception of Paris and Warsaw, where aggregate net profit impacts were inverted. To equalize profits in the counterfactual and factual scenarios, own-delivery costs would have to be 1.195 times the cost of third-party platform delivery costs in London, 0.905 in Paris, 1.105 in Madrid, and 0.690 in Warsaw.

Final impacts are estimated on a segment basis, with the number of meals attributed to each segment multiplied by the difference, for each channel and sub-segment, in average turnover per meal and average cost per meal. Financial results are estimated for both the factual and the counterfactual scenarios, and the net impact of third-party platforms is estimated as the difference between the factual and counterfactual financial results (see Figure 15). Finally, this is aggregated to produce the aggregate segment and overall industry impacts.

Figure 15: Net impact calculation





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