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Food Business Owner Perspectives on Meal Delivery Platforms in Belgium: A Qualitative Investigation

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Abstract

Reflecting global trends towards food retail digitalisation, meal delivery platforms such as Uber Eats have operated in Belgium since at least 2016. These platforms enable registered food businesses to sell ready-to-eat meals online. How such partnerships impact the function of food businesses in urban areas is poorly understood. This is critical given concerns that meal delivery platform business models support unfair levels of competition between international food corporations and independent food businesses. Based on 21 in-person interviews with the owners or managers of restaurants and takeaway food businesses, we describe how meal delivery is (re)shaping food retail in the region of Flanders, Belgium. Owners and managers informed us that meal delivery platform registration allows them to meet consumer demand. Nevertheless, online orders only supplement continued in-person ordering and dining. During busy periods, food businesses prioritise customers visiting their brick-and-mortar location by temporarily removing themselves from meal delivery platforms. Furthermore, they typically pass on "excessive" and "unfair" meal delivery platform commission fees to consumers through inflated online prices. The evolution of meal delivery platforms has encouraged the development of dark kitchens, where meals are prepared inside non-customer-facing locations and sold exclusively online. Monitoring the development of these facilities and the broader meal delivery system is needed to understand implications for urban areas. Food accessibility measures and definitions should continue to include brick-and-mortar food business locations. They must also consider variation in availability and price across neighbourhood and digital food environments according to the time of day.

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Keywords

food environment; food retail; food systems; meal delivery platforms; qualitative research; urban planning

1. Introduction

Meal delivery platforms facilitate the ordering, payment, and delivery of ready-to-eat meals. With the operations of such platforms extending across urban areas internationally, they are now considered one component of the commercial determinants of health influencing population-level availability of meals prepared out-of-home (World Health Organization Regional Office for Europe, 2021). These companies are estimated to achieve a global revenue of €425 billion in 2025, with the number of users set to reach 2.5 billion by 2029 (Statista, 2024). More than 60% of this user base is in Asia, with 12% in Europe and 10% in North America. While various meal delivery platforms exist, Just Eat Takeaway.com (formed from the merger of Just Eat and Takeaway.com in 2020) is considered the market leader in multiple countries (Statista, 2024). According to their annual reports, 85,000 food businesses across Northern Europe (Austria, Belgium, Denmark, Germany, Luxembourg, Poland, Slovakia, Switzerland, and The Netherlands) were registered with them in 2023, a growth of 8% compared with 2022 (Just Eat Takeaway.com, 2024). The Covid-19 pandemic is likely to have accelerated this companies growth and further established meal delivery platforms as a ubiquitous global phenomenon contributing to ongoing food retail digitalisation (Cummins et al., 2020).

The growing meal delivery sector and increased number of food businesses offering online ordering have contributed to concern for the future of food retail and the ways that individuals interact with urban living spaces (World Health Organization Regional Office for Europe, 2021). It is plausible that food businesses no longer need to operate from a customer facing brick-and-mortar location and instead choose a site with lower associated costs in areas not appropriately equipped to manage stress from aspects of food retail. This relocation introduces system-wide implications, including for levels of noise, pollution, and traffic and road safety. Additionally, there are likely to be impacts on the design and function of designated retail areas. The vitality and viability of these spaces could be undermined due to empty retail units and the emergence of unfavourable businesses such as betting shops, which would limit economic success and the quality of life for residents (Macdonald et al., 2018; Marek et al., 2021). Despite recognised concern, only limited aspects of the meal delivery platform business model have been investigated to date (Granheim et al., 2022). For example, it has been reported that meal delivery platforms tend to be used by younger adults who are typically motivated by convenience, with inconsistent evidence regarding their levels of education and income (Gupta et al., 2024; Keeble et al., 2022). These platforms also increase the geographic availability of energy-dense and nutrient-poor meals by allowing customers to purchase from food businesses that are not necessarily located in their neighbourhood food environments (Brar & Minaker, 2021; Hoenink et al., 2023). Moreover, delivery drivers report that their contracts are precarious and that they engage in unsafe travel behaviour to meet time-related delivery responsibilities (Aguilera et al., 2022). Notably, the perspectives of food businesses have rarely been considered.

One of the few studies to focus on food businesses was undertaken in the USA and investigated reasons for registration and how this impacted kitchen processes and operations (Traynor et al., 2022). Food business owners believed that although registration expanded their customer base and generated revenue, commission fees (paid by food businesses when they receive an online order, based on its value) limited



profitability. Moreover, owners adjusted their kitchen processes to accommodate online orders. Owners of food businesses not registered with a meal delivery platform recognised that online orders provide income, but having limited kitchen space prevented their registration. These insights are supported by qualitative findings of sociological research in Belgium that examined how meal delivery platforms are the primary beneficiaries of the connections between food businesses and customers that they create (Franke & Pulignano, 2023). In this research, food business managers stated that registration led to increased workloads for staff since they must prepare online orders and manage and maintain online menus, promotions, and reviews.

Beyond these examples, little is known about the relationships between food businesses and meal delivery platforms. Moreover, it is possible that consumer demand for in-person ordering and dining has reduced due to meal delivery platform use, potentially impacting food businesses not registered to accept online orders. As a result, the rationale for meal delivery platform registration and its influence on food business operations, revenue, and profitability are poorly understood, especially in Belgium and at a time when meal delivery coexists with in-person ordering and dining without restriction. Developing this knowledge is vital since many aspects of daily life have become digitalised, including food purchasing through a growing platform economy. This digitalisation and platformisation has broad implications for the future of food retail and food systems that now span physical and digital spaces (Sadowski, 2020; Shapiro, 2022). From an urban planning theory perspective, meal delivery platform availability and the digitalisation of food retail challenges concepts linked to proximity and spatial allocation that traditionally inform the most appropriate location for food businesses based on knowledge about demand, economic need, and existing road infrastructure (Barns, 2019). Therefore, we aimed to gather the perspective of food business owners and managers to better understand the direct and indirect benefits and consequences of engagement with meal delivery platforms. Given that these platforms are now a major component of modern food retail that can impact the design of urban areas and the distribution of food-related activities and retail, such knowledge will be beneficial for multiple disciplines, including urban planning, transport, and public health.

2. Methods

2.1. Research Reporting Guidelines

We used the Consolidated Criteria for Reporting Qualitative Research checklist to guide the development of our research and to report our findings (Tong et al., 2007).

2.2. Ethical Approval

The Ethics Committee for Social Sciences and Humanities of the University of Antwerp approved our research (ref: SHW_2024_35).

2.3. Methodological Orientation and Researcher Reflexivity

Our research had an interpretivist orientation, not based on existing theory. By positioning participants as expert knowledge informants, we investigated their opinions about meal delivery platforms in the context of their broader business-related roles (Lincoln et al., 2011). Our multi-disciplinary research expertise across



public health and urban planning informed our collection, analysis and interpretations of the data we collected. For example, we especially focused on urban area function, vitality, and viability, and individual-level food accessibility.

2.4. Research Setting

We completed fieldwork between April and July 2024 in the cities of Aalst (~88,000 population), Ghent (~265,000 population), and Antwerp (~530,000 population), located in the region of Flanders, Belgium (Statbel, 2025). Meal delivery platforms operated in each city throughout our fieldwork.

2.5. Sampling Frame Development and Food Business Identification

We developed a sampling frame that included two groups of food businesses selling ready-to-eat meals. The first group were currently registered with at least one meal delivery platform and the second group were not currently registered. To generate a list of food businesses in Aalst, Ghent, and Antwerp, we searched the name of each city in the leading meal delivery platform in Belgium (Just Eat Takeaway.com) and OpenStreetMap (OSM). For the latter, we used tags related to food retail and delivery, such as "amenity = fast_food." While OSM data provides an accurate directory for food business identification (Pinho et al., 2023), we complemented these data with information from Google to verify food business contact details, opening hours, and addresses. We did not include international food chains such as McDonald's in our sampling frame because meal delivery platform registration is not necessarily the decision of local franchisees. Furthermore, any negative consequences of registration are likely to be offset by the chain's global prominence.

2.6. Recruitment Procedure

As with previous research (Zhang et al., 2024), we believed that food business owners or managers would be best placed to report if and how meal delivery platforms influence their operations and finances, employees, customers, and broader urban areas. The lead author (MK; a white male, native English speaker, trained and experienced in conducting qualitative research) purposefully visited food businesses from our sampling frame in-person, on a sequential basis. During visits, MK first asked for permission to communicate in English (while speaking Dutch), and when allowed, introduced himself as a researcher. After establishing an initial relationship, and only when staff members were willing to engage, MK outlined the aims of our research and participation requirements. On the same day, MK followed up via email. This email summarised the visit, provided written information and asked if the owner or manager would participate. MK sent a second email after five working days when there was no response to the first email and recorded recruitment as being unsuccessful when there was no response to the second email. We did not offer an incentive for participation.

2.7. Data Collection

2.7.1. Topic Guide Development

Before starting data collection, we developed a topic guide based on our research aims and existing evidence (Overvelde et al., 2024; Traynor et al., 2022). MK used our initial topic guide in one pilot interview



with the owner of a food business in Antwerp that was not currently registered with a meal delivery platform. We refined our topic guide based on the pilot interview and throughout data collection to ensure that questions were understandable and so that salient topics from early interviews were later included (see the Supplementary Material for an overview of topics).

2.7.2. Semi-Structured Interviews

MK conducted one-off semi-structured interviews in-person. Participants provided written informed consent before the start of the interview and agreed for conversations to be audio-recorded. MK used our topic guide as the basis for data collection and asked probing and follow-up questions to elicit deeper responses and seek clarification. Immediately after each interview, MK completed a written reflection that included possible topic guide amendments and immediate interpretations of collected data.

2.8. Data Analysis

An external company transcribed interview audio recordings verbatim. MK reviewed each transcript while listening to the corresponding recording to confirm its accuracy and made corrections where necessary. Participants did not review the transcript from the recording of their interview. Although this exercise facilitates credibility, we did not feel that our already collected data required clarification (Birt et al., 2016). LT also listened to the audio recording from each interview.

Using NVivo version 14 to manage data, MK led reflexive thematic analysis to generate codes and themes from collected data. This analytic approach encourages researchers to acknowledge their active role in data collection and interpretation (see Section 2.3), is not linked to a single theoretical position, and does not necessarily align with the development of a codebook a priori (Braun & Clarke, 2024). In practice, MK read each transcript on multiple occasions and used a combination of deductive and inductive coding, driven by our research aims and collected data, respectively. MK identified and noted similarities and differences in the rhetoric of participants by coding for semantic and latent meaning, acknowledging that the latter extends beyond description to identify underlying perspectives (Naeem et al., 2023). In turn, MK grouped generated codes into themes, which provide an extensive summary of interrelated topics discussed with participants during data collection. MK met with LT throughout analysis to discuss findings and interpretations. The purpose of these meetings was to establish credibility and dependability via debriefing that built on the experiences and perspectives of MK as the researcher responsible for data collection and analysis (Lincoln & Guba, 1985). After around 17 interviews, MK believed that collected data appeared to provide thematic depth to the topics of focus in our research. Following four additional interviews, MK and LT concluded that limited new information or "rich" (i.e., quality) data were provided and therefore ended fieldwork (Malterud et al., 2015; Saunders et al., 2018).

3. Results

3.1. Data Overview

Between April and July 2024, MK conducted 21 semi-structured interviews with owners or managers of food businesses located across Aalst (n = 3), Ghent (n = 10), and Antwerp (n = 8). Of these interviews, 20 took



place inside the food businesses of participants, six were open to customers, and 14 were closed at the time. One interview was held in public. Interviews lasted between 21 and 52 minutes. Table 1 provides information about the food businesses from which we recruited participants. Of these food businesses, 14 were currently registered with at least one meal delivery platform and seven were not. Beyond those recruited, we did not receive a response to 135 initial emails sent after in-person visits and nine food business representatives chose not to participate, with no reason provided.

Table 1. Characteristics of food businesses in Aalst, Ghent, and Antwerp from which owners or managers were recruited between April and July 2024.

Ref	Meal delivery platform registration status	Time since registration	Cuisine of meals sold
P1	Registered	3.5 years	Sandwiches
P2	Not currently registered	_	Belgian
Р3	Registered	8 years	Sushi
P4	Registered	7 years	Italian
P5	Not currently registered	_	Indonesian
P6	Registered	7 years	Sushi
P7	Registered	2.5 years	Spanish
P8	Not currently registered	_	Salads, sandwiches, soups
P9	Registered	4 years	African
P10	Registered	4 years	Pita, kebabs, wraps
P11	Registered	6 years	Spaghetti
P12	Not currently registered *	_	Japanese
P13	Not currently registered *	_	Salads, sandwiches, soups
P14	Registered	5 years	Frituur
P15	Registered	2 years	Soups, sandwiches
P16	Not currently registered *	_	Pizza
P17	Registered	6 years	Southeast Asian
P18	Registered	3 years	Italian
P19	Not currently registered *	_	Soup
P20	Registered	3 months	Salads, sandwiches, soups
P21	Registered	6 years	Fish and chips

Notes: We do not report the city of food businesses to help protect their anonymity. Food businesses not currently registered may have been registered in the past (*). A Frituur sells traditional Belgian fried food.

3.2. Generated Themes

We generated four themes: Rationale for registration; Incurring and offsetting commission fees; Managing benefits and consequences; The future of food retail. Next, we present each theme with supporting verbatim quotes from participants, according to their reference number.



3.2.1. Rationale for Registration

There was a common opinion across all owners and managers that meal delivery platforms are now embedded in society. As a result, their registration was underpinned by an opportunity to meet consumer demand. As each different meal delivery platform was seen to have its own set of users, simultaneous registration with more than one was a strategy to enhance opportunities to receive online orders:

I think these services are really answering the needs of people. It would be stupid to stop because if we stop, we'll lose part of our revenue. (P15)

Participants reported that opportunities to receive online orders had been made especially attractive by meal delivery platform representatives before and during registration. These representatives positioned meal delivery platforms as being flexible and that online orders would complement existing business functions:

The way they sell it is to make extra—like it's not a core business, it's for the quiet moments to have a little bit of extra turnover. (P17)

Owners and managers from food businesses not registered with meal delivery platforms appreciated that they sacrifice "extra turnover" and were aware that their competitors had registered. Nevertheless, they felt that registration was unnecessary because they were satisfied with existing levels of revenue and profit. Furthermore, they wanted to focus on customers visiting their brick-and-mortar locations so that they could provide them with the best possible experience. Limited time to manage additional orders further supported their decision not to register:

I'm happy with the customers that I have. All of my customers are returning customers. I have a dozen or more daily customers even during summer. I don't need the extra that I would make by using any kind of delivery. (P19)

3.2.2. Incurring and Offsetting Commission Fees

All owners and managers had an opinion about meal delivery platform commission fees. Some reported that the "crazy fees" were unfair and unjustified, with some positioning the platforms as being "greedy," "thieves," and a "disease":

They said, 25–30% but if you add all the costs, you come to about 40%. It's just stupid. You don't need so much to run that business. It's just greed. Simple greed. (P6)

Such negative language reinforced a common perspective that paying commission fees had to be tolerated rather than approved. In contrast, a more positive point of view reflected that paying commission fees had been accepted since it was necessary to access meal delivery platform infrastructures. In an attempt to limit financial losses due to these fees, most owners and managers from registered food businesses increased prices for online orders. However, this was only possible when their prices were ordinarily affordable. Increasing higher than typical food prices would risk losing customers to competitors:



We're using quality products and we do everything homemade, so our cost is already a lot. We're not in the cheap range of price for casual food—we're more in the high range of prices. If you see the offer on Uber Eats, we cannot also add 30% extra on our price. (P18)

3.2.3. Managing Benefits and Consequences

We generated four interconnected and overlapping sub-themes that captured how meal delivery platform registration can provide benefits and consequences for food businesses and their staff that are either realised or expected: Impacts of demand; Further stress for staff; No longer having full control; Customer focus.

3.2.3.1. Impacts of Demand

Although online orders are typically received at regular mealtimes (i.e., lunch and dinner), owners and managers are not always able to anticipate the specific days they will arrive or their volume. They viewed this unpredictability as being different from demand for ordering and dining at their brick-and-mortar locations. This was easier to anticipate due to experience accumulated over time. Furthermore, large groups of unanticipated customers were considered easier to manage due to being able to communicate face-to-face, which was not possible for online orders:

It depends, some days we get a lot of orders through Uber, sometimes it's only one or two. So, it changes day to day. (P15)

Regarding food preparation, unexpectedly large online orders were a concern because they could mean that menu items became unavailable for other customers. Such orders also dictated the immediate tasks and priorities of staff:

We sell little chicken skewers, but you need to make them—it takes a lot of time, and then suddenly someone orders, I don't know, 25 chicken skewers but that was all of our prep and then one order takes it all. Then, suddenly a table orders four and then another order and then on the spot, you need to start making more skewers because one guy ordered 25. (P17)

While large or unexpected online orders can be disruptive, they also generate revenue during otherwise quiet periods. Existing kitchen spaces easily manage online order preparation when there is little demand from elsewhere. Nevertheless, preparation becomes challenging when multiple orders from different purchasing modes arrive simultaneously. As a result, inadequate kitchen space can be a barrier to initial registration and inform decisions to end registration. This was especially the case after meal delivery platform registration had been trialled and the impacts of online orders on business operations experienced:

This isn't the appropriate place to also do delivery. I only have this small counter to make the pizza, and I can't prepare big orders. It's just not manageable...but on the other hand, if I had the space, maybe I would do it just because it's extra revenue or profit. (P16)



Beyond kitchen spaces, dining areas inside brick-and-mortar locations can become overcrowded during busy periods, especially when delivery drivers arrive to collect online orders. Having these individuals wait inside until meals were ready was seen to disrupt the ambience that owners and managers wanted to create. Nevertheless, participants reported that they must operate with multiple co-existing revenue streams to remain relevant and competitive and maintain profitability.

3.2.3.2. Further Stress for Staff

Alongside their existing roles, staff working for registered food businesses were expected to find solutions for complicated or ambiguous online orders. They also had to resolve customer complaints, for example, when meals were not delivered. Such additional responsibilities were seen as a new pressure on staff time. As a result, one owner encouraged others to consider if registration was truly needed and to be wary of possible consequences:

If you want to do it, make sure you have a lot of energy to fix the problems if they occur because a problem is easily there. Your food doesn't get delivered. People call to complain. Yeah, that's all on you, so I think be careful. Do it if you want. If you don't have to, don't do it. (P3)

Questioning registration in this manner was an ongoing process. Owners and managers acknowledged that they could choose to stop accepting online orders if and when the stress they create fails to be adequately offset by the benefit of additional revenue:

But for me, it's just more of a headache. As long as I don't really really need them, I'm not going back. (P19)

3.2.3.3. No Longer Having Full Control

While food businesses registered with a meal delivery platform can benefit from an expanded customer base and additional revenue, owners and managers were apprehensive about not being in full control of the meals customers eventually received. They acknowledged that it was vital for customers to have good experiences so that they would become loyal and place orders again in the future:

You give the responsibility to make it really perfect to somebody else. If you work so much in the kitchen to make it really perfect, it's difficult to give it away. I hope you do good. I hope you don't mess up. (P2)

Discussions about losing control typically involved delivery drivers. Owners and managers used empathetic language to position this group as a vital but underappreciated aspect of the meal delivery platform business model. However, since owners and managers outsourced delivery to meal delivery platforms, they believed it was unfair for their businesses to receive negative reviews if a customer received their meal later than expected or if it arrived cold or damaged:

I mean, the bad reviews that we've had up to now are generally about the delivery, not the food. It's not our fault. There's nothing we can do. (P7)



3.2.3.4. Customer Focus

To enhance the benefits of registration, while at the same time minimising the impacts from consequences, owners and managers described compensatory strategies they had developed and adopted. These strategies primarily involved "turning off delivery" on a temporary basis so that they would not receive online orders for a given period of time. Meal delivery platforms encouraged this to manage demand, yet owners and managers were concerned that doing so meant they would not receive orders in the future given the number of alternatives that customers could choose from:

So, if it really gets too busy in the store, we switch off the tablets. I mean, we're not very fond of it but when it's super busy, we can't afford to run behind in the store because of our delivery partners. (P14)

One participant suggested that in the future, customers may have their online choices limited to chain food businesses. These businesses can accommodate high levels of demand with no impact on their kitchen functions and customer service, can afford to employ additional members of staff to alleviate stress, and negotiate reduced commission fees that allow them to maintain already low prices due to limited concern for narrowed profit margins:

I always think this kind of process is tailored for bigger companies and we're more in the small, personal companies that don't match this way of working. (P18)

Owners and managers also described their actions when they had online orders to prepare in addition to customers visiting their brick-and-mortar location. Customers who had put in the effort to visit them so that they could order or dine in-person were prioritised by having their meals prepared first. Such actions reinforce that meal delivery supplements core business functions and is rarely a primary focus:

If we're busy, we have to focus on the customers inside. The Uber Eats and Deliveroo orders—they're not an afterthought, but the people coming to the restaurant, they're slightly prioritised. (P21)

3.2.4. The Future of Food Retail

We identified a sense that regardless of meal delivery platform availability, hedonic and sociocultural aspects of visiting the brick-and-mortar locations of food businesses could not be replicated through delivery. This view was most apparent when owners and managers discussed dark kitchens, which enable food businesses to prepare meals in non-customer-facing locations and sell them exclusively through meal delivery platforms. Although there was acknowledgement that the emergence of these facilities could be particularly disruptive to the future of urban food environments, they believed that food norms in Belgium that prioritise personal interactions mean they will not become widespread. As one participant stated, although meal delivery platforms are already established and apparently popular in their city, revenue generated from online orders would not allow them to operate exclusively from a dark kitchen:

The thing I like the most about having my business is that I get to know a lot of people....Okay, the delivery services are kind of big already here, but it's nothing compared to cities like Brussels....The revenues would be too low to only have a dark kitchen. (P15)



Despite the view that dark kitchens might not yet flourish in the Flanders region of Belgium, owners and managers outlined the importance of remaining up to date with current and future trends. They believed that there is a growing demand for convenience from customers. In turn, this means customers will increasingly purchase and consume ready-to-eat meals instead of cooking at home:

The current and new generations will use those services more and more. We've seen it grow over time, and it's not because of our product, it's just because people don't want to cook at home anymore. (P11)

Many of the owners and managers in our research were from food businesses that registered with a meal delivery platform during the Covid-19 pandemic having not previously offered delivery. Although this was somewhat forced upon food businesses as a means of survival, it is noteworthy that they successfully adapted. This is consistent with an awareness that food retail is becoming increasingly digitalised. For instance, traditional aspects such as menus are being replaced with scannable QR codes. One participant described how they had already started to consider online ways of working as part of their future:

In the coming five years there is going to be a lot of change. I see restaurants closing....I'm thinking in the future, everything is going to be digitalised, so I'm investing in that too. (P10)

4. Discussion

4.1. Summary of Findings

Our findings provide novel information about meal delivery platforms from the perspective of food business owners and managers—an important point of view that has been under-investigated. Given increased consumer demand for online ordering, registration with at least one meal delivery platform can be seen as a strategy to generate revenue that complements revenue from orders received in-person. Commission fees that accompany online orders can detract from generated revenue and threaten profitability. Many registered food businesses pass on the cost of these fees to consumers by increasing online prices. Meal delivery platform commission fees can also be a barrier to registration and contribute to decisions to stop accepting online orders. Receiving and processing online orders was described as stressful for staff and can impact the experiences of customers visiting brick-and-mortar locations. Food business staff prioritise customers they can speak to face-to-face, with in-person dining considered a vital contributor to Belgian food culture. Given this food culture, in the context of the Flanders region of Belgium, built food environments maintain their importance for urban food retail. Nevertheless, registration with a meal delivery platform might become increasingly necessary for future survival as part of broader food system digitalisation.

4.2. Interpretation of Findings and Future Research

Our findings indicate that meal delivery platform registration does not mean that food businesses can afford to forget about the continued importance of customers visiting them in-person. Instead, registered food businesses have the opportunity to generate revenue through complementary modes of order. We identified that registration with multiple platforms enables greater customer exposure that can lead to revenue. Nevertheless, registration is not always feasible because of limited capacity in the kitchen spaces where meals are prepared. We also identified that receiving and processing online orders can be stressful for



staff, especially during busy periods of the day such as lunchtime. Our findings are supported by evidence that food business staff in Canada were expected to process and prepare online orders in addition to their existing roles, causing stress (Overvelde et al., 2024). Despite this, registration appears to be necessary for food businesses to maintain relevance within the broader food retail sector that has become increasingly competitive over time, especially since the Covid-19 pandemic. Like other forms of retail that were forced to adapt during the Covid-19 pandemic (Beckers et al., 2021), it is vital that food businesses consider if and how meal delivery platform registration will impact their kitchen operations and staff stress levels. As has been reported by food business owners in the USA (Traynor et al., 2022), solutions can be adopted to minimise this by changing cooking workflows to accommodate online orders and selling a limited number of items exclusively online.

Consistent with previous evidence from Belgium (Franke & Pulignano, 2023), we identified that food businesses increase their prices for online orders to minimise the extent to which meal delivery platform commission fees shrink their profit margins. There is a risk that meal delivery platforms become dominated by a selection of food businesses that can absorb commission fees without increasing their already low prices—namely, chain corporations who prioritise profit over health by providing cheap, energy-dense, and nutrient-poor food (World Health Organization Regional Office for Europe, 2024). Opportunities to enhance healthier food access online are already being missed and will continue to be missed in this scenario since food price is known to contribute to customer purchasing decisions (Janssen et al., 2018; Keeble et al., 2022). The overall size of the digital food environment is a recognised public health concern, especially since its scope is not constrained by geographical boundaries (World Health Organization Regional Office for Europe, 2021, 2024). Monitoring the food businesses registered with meal delivery platforms, including the number, their menus, food prices, and unique promotional offers that could influence affordability, is essential to understand how these platforms can support or hinder efforts to improve population-level dietary health.

Importantly, owners and managers reported that they manipulate the availability of their food business on meal delivery platforms during busy periods of the day. Our finding emphasises that access to food through these platforms is dynamic and influenced by factors beyond the location of and distance between food businesses and customers. This has important implications for how food accessibility through meal delivery platforms is conceptualised and measured. The current evidence base has largely failed to incorporate temporality when determining exposure and outcome measures. As demonstrated for brick-and-mortar food accessibility (Thornton et al., 2020), this is likely to misrepresent the food businesses available through meal delivery platforms. Further investigation is needed to inform how digital food accessibility is conceptualised and measured, and variation according to the time of day.

A perception that it is difficult for meal delivery platforms to replicate the sociocultural norms and hedonic values of in-person ordering and dining helps explain why we found little concern about the future of brick-and-mortar food business locations in Belgium. This is also important from an urban planning perspective since restaurants contribute to the attractiveness and retail function of towns and cities. The Belgian National Food Consumption Survey from 2022–2023 supports our finding, since results indicate that the use of meal delivery platforms may not yet be widespread. While 47% of the Belgian population aged 10 years and over reported eating inside restaurants with table service at least once per month, only 21% reported having food delivered to home (Sciensano, 2024). Opportunities to order meals prepared out-of-home in-person or through meal delivery platforms coexist. It is essential to understand the factors



that influence why and under which circumstances different modes of order are used by engaging with meal delivery platform users and non-users. Although dining inside a restaurant with others is a sociocultural norm in Belgium (Castelo et al., 2021), we acknowledge that differences across countries have scope to influence the current and future frequency of meal delivery platform use.

In Canada, meal delivery platform registration did not equate to food business survival during the Covid-19 pandemic (Wray et al., 2024). Moreover, financial statements from food businesses registered with a meal delivery platform in Belgium suggest that online orders provide revenue but not necessarily profit (Veldhoven et al., 2021). On balance, registration does not lead to economic harm for food businesses, and contributes to employment opportunities (Azzoni et al., 2025). It is beneficial for urban areas that retail units are not becoming vacant due to food business closure as a direct result of meal delivery platform availability. Nonetheless, it remains possible that the presence of these platforms impacts longer term local area vibrancy, viability, and function through increased traffic, pollution, litter, and pressures on night-time economies that are not currently observable (Bates et al., 2020; Granheim et al., 2022). Notably, these aspects of meal delivery platform availability were not a concern for the food business owners and managers in our research. Therefore, discussions with professionals and policymakers working across multiple disciplines, including urban planning, transport, and retail are required to help identify specific opportunities and threats for urban areas in the context of meal delivery.

The need for such discussions is especially relevant for dark kitchens. These facilities enable food businesses to prepare meals in non-customer-facing locations and sell them exclusively through meal delivery platforms (Thimoteo da Cunha et al., 2024). This stands to disrupt the food retail sector since dark kitchens do not need to be located in traditional business zones. Moreover, a shift in the location of food retail to areas not equipped or designed to handle related challenges has scope for broader impacts on urban living. Despite this, food business owners and managers in our research did not believe that dark kitchens would prosper in the Flanders region of Belgium because of limited online order revenue. In contrast, there is concern from professionals in many countries across Europe, including in Belgium, where urban planning policies have been adopted to prevent dark kitchen proliferation (Amies, 2022; Shapiro, 2022). The introduction of such policies emphasises a need to consider how meal delivery platforms are reshaping food accessibility across built and digital food environments.

4.3. Strengths and Limitations

We completed data collection in three cities where meal delivery platforms operate. The ubiquity of these platforms across multiple countries increases the transferability of our findings. Data collection away from urban centres may have allowed us to understand different reasons for registration and accompanying benefits and consequences for food businesses located elsewhere. Despite this, however, meal delivery platform availability is most pronounced in urban areas, limiting their relevance for food businesses located elsewhere. The lead author (MK; a white, native English speaking, male) conducted all interviews with food business owners or managers in English. These individuals were well-placed to provide insight into the financial performance of their food business and to discuss how operations were being impacted. In some instances, data collection took place when food businesses were open, which led to minor work-related interruptions and distractions. These were infrequent and did not impact our data but their occurrence is important to note. Fieldwork with this population group has been recognised as challenging (Zhang et al.,



2024), and our approach to data collection was pragmatic and appropriate given that we did not incentivise participation. Finally, English was not necessarily the native language for participants. Despite this, during recruitment, we outlined that interviews would be carried out in English, and all participants confirmed they were comfortable with this. Moreover, in line with our aims, we did not recruit waiting or kitchen staff who may have unique insight about meal delivery platforms. In addition to the data we have analysed and reported on, we engaged with the owners and managers of three fresh food businesses during our fieldwork. These individuals were most concerned about threats to their future from fruit and vegetable delivery and recipe-box subscription services, rather than meal delivery platforms. To maintain specificity, we did not include these perspectives but recognise they are under-investigated (Granheim et al., 2022). Thus, future research should consider gaining a broader perspective from across the food system. This could include, for example, other members of food business staff, other types of retailers, and urban planners. Doing so would offer a holistic view on what the presence of meal delivery platforms means for working arrangements and urban form across the food system.

5. Conclusion

Our investigation into food business owners and managers perspectives on meal delivery platforms in the Flanders region of Belgium indicates that registration is motivated by opportunities to meet consumer demand. While registered food businesses benefit from the revenue and profit generated from online orders, accompanying commission fees can lead to inflated online prices that have scope to impact food affordability. Online orders can also be stressful for staff and lead to negative customer reviews. Although meal delivery platforms are not necessarily a threat to brick-and-mortar food business locations in the context of Flanders, Belgium, their presence contributes to the overall availability of ready-to-eat meals. Continued monitoring of meal delivery platforms will help identify currently unobservable impacts, both in countries where they are already prominent and in those where they are becoming established—this will be essential to understand as food retail becomes increasingly digitalised.

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Conflict of Interests

The authors declare no conflict of interests.

Data Availability

Anonymised data collected for this research is available from the corresponding author upon reasonable request.

Supplementary Material

Supplementary material for this article is available online in the format provided by the authors (unedited).



References

- Aguilera, A., Dablanc, L., Krier, C., & Louvet, N. (2022). Platform-based food delivery in Paris before and during the pandemic: Profile, motivations and mobility patterns of couriers. *European Transport Research Review*, 14(1), 45. https://doi.org/10.1186/s12544-022-00569-8
- Amies, N. (2022, January 26). 'Dark kitchens' thriving in pandemic-era Belgium. *The Bulletin*. https://www.thebulletin.be/dark-kitchens-thriving-pandemic-era-belgium
- Azzoni, C. R., Moita, R. M. S., & Rodrigues, M. (2025). Meal delivery and the local restaurant industry. *Applied Geography*, 176, 103524. https://doi.org/10.1016/j.apgeog.2025.103524
- Barns, S. (2019). Platform urbanism: Negotiating platform ecosystems in connected cities. Springer.
- Bates, S., Reeve, B., & Trevena, H. (2020). A narrative review of online food delivery in Australia: Challenges and opportunities for public health nutrition policy. *Public Health Nutrition*, 26(1), 262–272. https://doi.org/10.1017/s1368980020000701
- Beckers, J., Weekx, S., Beutels, P., & Verhetsel, A. (2021). COVID-19 and retail: The catalyst for e-commerce in Belgium? *Journal of Retailing and Consumer Services*, 62, 102645. https://doi.org/10.1016/j.jretconser. 2021.102645
- Birt, L., Scott, S., Cavers, D., Campbell, C., & Walter, F. (2016). Member Checking: A tool to enhance trustworthiness or merely a nod to validation? *Qualitative Health Research*, 26(13), 1802–1811. https://doi.org/10.1177/1049732316654870
- Brar, K., & Minaker, L. M. (2021). Geographic reach and nutritional quality of foods available from mobile online food delivery service applications: Novel opportunities for retail food environment surveillance. *BMC Public Health*, 21(1), 458. https://doi.org/10.1186/s12889-021-10489-2
- Braun, V., & Clarke, V. (2024). A critical review of the reporting of reflexive thematic analysis in *Health Promotion International*, 39(3), daae049. https://doi.org/10.1093/heapro/daae049
- Castelo, A. F. M., Schäfer, M., & Silva, M. E. (2021). Food practices as part of daily routines: A conceptual framework for analysing networks of practices. *Appetite*, *157*, 104978. https://doi.org/10.1016/j.appet. 2020.104978
- Cummins, S., Berger, N., Cornelsen, L., Eling, J., Er, V., Greener, R., Kalbus, A., Karapici, A., Law, C., Ndlovu, D., & Yau, A. (2020). COVID-19: Impact on the urban food retail system, diet and health inequalities in the UK. *Cities & Health*, 5(1), S119–S122. https://doi.org/10.31235/osf.io/dwv2e
- Franke, M., & Pulignano, V. (2023). Connecting at the edge: Cycles of commodification and labour control within food delivery platform work in Belgium. *New Technology, Work and Employment*, 38(2), 371–390. https://doi.org/10.1111/ntwe.12218
- Granheim, S. I., Løvhaug, A. L., Terragni, L., Torheim, L. E., & Thurston, M. (2022). Mapping the digital food environment: A systematic scoping review. *Obesity Reviews*, 23(1), e13356. https://doi.org/10.1111/obr. 13356
- Gupta, A., Sacks, G., Cameron, A. J., Huggins, C. E., Peeters, A., Backholer, K., Vanderlee, L., White, C. M., Scapin, T., Gomez-Donoso, C., Bennett, R., Dubin, J. A., & Hammond, D. (2024). Use of online food delivery services among adults in five countries from the International Food Policy Study 2018–2021. *Preventive Medicine Reports*, 43, 102766. https://doi.org/10.1016/j.pmedr.2024.102766
- Hoenink, J. C., Huang, Y., Keeble, M., Mackenbach, J. D., Pinho, M. G. M., Burgoine, T., & Adams, J. (2023). Socioeconomic distribution of food outlet availability through online food delivery services in seven European countries: A cross-sectional study. *Health & Place*, 84, 103135. https://doi.org/10.1016/j.healthplace.2023.103135



- Janssen, H. G., Davies, I. G., Richardson, L. D., & Stevenson, L. (2018). Determinants of takeaway and fast food consumption: A narrative review. *Nutrition Research Reviews*, 31(1), 16–34. https://doi.org/10.1017/s0954422417000178
- Just Eat Takeaway.com. (2024). *Annual report* 2023. https://s205.q4cdn.com/266311280/files/doc_financials/2023/ar/Annual-Report-2023.pdf
- Keeble, M., Adams, J., & Burgoine, T. (2022). Investigating experiences of frequent online food delivery service use: A qualitative study in UK adults. *BMC Public Health*, 22(1), 1365. https://doi.org/10.1186/s12889-022-13721-9
- Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic inquiry. Sage.
- Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2011). *Paradigmatic controversies, contradictions, and emerging confluences, revisited* (Vol. 4). Sage.
- Macdonald, L., Olsen, J. R., Shortt, N. K., & Ellaway, A. (2018). Do 'environmental bads' such as alcohol, fast food, tobacco, and gambling outlets cluster and co-locate in more deprived areas in Glasgow City, Scotland? Health & Place, 51, 224–231. https://doi.org/10.1016/j.healthplace.2018.04.008
- Malterud, K., Siersma, V. D., & Guassora, A. D. (2015). Sample size in qualitative interview studies: Guided by information power. *Qualitative Health Research*, 26(13), 1753–1760. https://doi.org/10.1177/1049732315617444
- Marek, L., Hobbs, M., Wiki, J., Kingham, S., & Campbell, M. (2021). The good, the bad, and the environment: Developing an area-based measure of access to health-promoting and health-constraining environments in New Zealand. *International Journal of Health Geographics*, 20(1), 16. https://doi.org/10.1186/s12942-021-00269-x
- Naeem, M., Ozuem, W., Howell, K., & Ranfagni, S. (2023). A step-by-step process of thematic analysis to develop a conceptual model in qualitative research. *International Journal of Qualitative Methods*, 22, 1–18. https://doi.org/10.1177/16094069231205789
- Overvelde, A., McEachern, L., & Gilliland, J. (2024). Investigating food retail workers' experiences during the COVID-19 pandemic: A case of effort-reward imbalance. *Journal of Occupational and Environmental Hygiene*, 21(8), 551–563. https://doi.org/10.1080/15459624.2024.2358169
- Pinho, M. G. M., Flueckiger, B., Valentin, A., Kasdagli, M.-I., Kyriakou, K., Lakerveld, J., Mackenbach, J. D., Beulens, J. W. J., & de Hoogh, K. (2023). The quality of OpenStreetMap food-related point-of-interest data for use in epidemiological research. *Health & Place*, *83*, 103075. https://doi.org/10.1016/j.healthplace. 2023.103075
- Sadowski, J. (2020). Cyberspace and cityscapes: On the emergence of platform urbanism. *Urban Geography*, 41(3), 448–452. https://doi.org/10.1080/02723638.2020.1721055
- Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2018). Saturation in qualitative research: Exploring its conceptualization and operationalization. *Quality and Quantity*, *52*, 1893–1907. https://doi.org/10.1007/s11135-017-0574-8
- Sciensano. (2024). FCS—National Food Consumption Survey. https://www.sciensano.be/en/projects/national-food-consumption-survey
- Shapiro, A. (2022). Platform urbanism in a pandemic: Dark stores, ghost kitchens, and the logistical-urban frontier. *Journal of Consumer Culture*, 23(1), 168–187. https://doi.org/10.1177/14695405211069983
- Statbel. (2025). Population. https://statbel.fgov.be/nl/themas/census/bevolking/bevolking#panel-11
- Statista. (2024). *Online food delivery—Worldwide*. https://www.statista.com/outlook/emo/online-food-delivery/worldwide
- Thimoteo da Cunha, D., Piton Hakim, M., Müller Alves, M., Scudeller Vicentini, M., & Zdzisława Wiśniewska, M.



- (2024). Dark kitchens: Origin, definition, and perspectives of an emerging food sector. *International Journal of Gastronomy and Food Science*, 35, 100884. https://doi.org/10.1016/j.ijgfs.2024.100884
- Thornton, L. E., Lamb, K. E., & White, S. R. (2020). The use and misuse of ratio and proportion exposure measures in food environment research. *International Journal of Behavioral Nutrition and Physical Activity*, 17(1), 118. https://doi.org/10.1186/s12966-020-01019-1
- Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*, 19, 349–357. https://doi.org/10.1093/intqhc/mzm042
- Traynor, M., Bernard, S., Moreo, A., & O'Neill, S. (2022). Investigating the emergence of third-party online food delivery in the U.S. restaurant industry: A grounded theory approach. *International Journal of Hospitality Management*, 107, 103299. https://doi.org/10.1016/j.ijhm.2022.103299
- Veldhoven, Z. V., Aerts, P., Ausloos, S. L., Bernaerts, J., & Vanthienen, J. (2021). The impact of online delivery services on the financial performance of restaurants. In 7th International Conference on Information Management (pp. 13–17). IEEE. https://doi.org/10.1109/ICIM52229.2021.9417153
- World Health Organization Regional Office for Europe. (2021). Slide to order: A food systems approach to meals delivery apps: WHO European Office for the Prevention and Control of Noncommunicable diseases. https://apps.who.int/iris/handle/10665/350121
- World Health Organization Regional Office for Europe. (2024). *Commercial determinants of noncommunicable diseases in the WHO European Region*. https://iris.who.int/handle/10665/376957
- Wray, A., Arku, G., Long, J., Minaker, L., Seabrook, J., Doherty, S., & Gilliland, J. (2024). Restaurant survival during the COVID-19 pandemic: Examining operational, demographic and land use predictors in London, Canada. *Urban Studies*, 62(5), 909–931. https://doi.org/10.1177/00420980241269785
- Zhang, A. Y., Antonacci, C. C., Laska, M. N., & Winkler, M. R. (2024). Conducting industry informant interviews to advance healthy food retail initiatives: Challenges, opportunities, and lessons. *Health Promotion International*, 39(6), daae158. https://doi.org/10.1093/heapro/daae158

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