Online fast-food retail in the UK: research progress and future challenges

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14th December 2021
Acknowledgements

National Institute for Health Research (NIHR) School for Public Health Research

(grant reference number: PD-SPH-2015)

MRC Epidemiology Unit and the Medical Research Council

(grant reference number: MC_UU_12015/6)
When did you last purchase takeaway (fast) food?
“Online food delivery service platforms”

An alternative to offline purchasing formats that sell food prepared away from the home (fast food) ¹⁻⁵


- **Uber Eats**: 66 million users
- **Just Eat**: 179 million orders processed
- **Deliveroo**: 5.6 billion (£) valuation
Existing literature


How we eat determines what we become: opportunities and challenges brought by food delivery industry in a changing world in China

Article in European Journal of Clinical Nutrition - September 2018
DOI: 10.1038/ejcn.2018.0255-2

Consumer experiences, attitude and behavioral intention toward online food delivery (OFD) services
Vincent Cheow Sern Yeo, See-Kwong Goh, Sajad Rezaei

Mapping the digital food environment: A systematic scoping review
Sabrina Ionata Granheim1, Anne Lene Løvhaug2, Laura Terragni2, Liv Elin Torheim2, Miranda Thurston1
Establishing knowledge

CUSTOMERS...

demographics of online food delivery service users

ACCESS...

variation in online food outlet availability in England

EXPOSURE...

associations between online food outlet access and online food delivery service use

REASONS...

experiences and perspectives of frequent customers
Research progress
CUSTOMERS...

demographics of online food delivery service users

Methods overview

• Online survey data from adults in Australia, Canada, Mexico, the UK and the USA (International Food Policy Study)

• Self-reported demographic information including sex, age, education level, ethnic group identified with and presence of a child at home

• Number of meals purchased:
  I. away from the home in the past week
  II. through an online food delivery service

• Adjusted logistic regression models

Keeble et al. 2020, IJERPH.
Online food delivery service use over the past week...

15% of all respondents (n=19,378)

16% of respondents in the UK

12% of respondents in the USA

Keeble et al. 2020. IJERPH.
Online food delivery service customer demographics

Variable: OR (95% CI)
- **Sex** - male: 1.50 (1.35, 1.66)
- **Ethnicity** - minority: 1.57 (1.38, 1.78)
- **Age** - years: 0.95 (0.94, 0.95)
- **Child at home** - yes: 2.71 (2.44, 3.01)

**Education level**
- Medium: 1.10 (0.94, 1.30)
- High: 1.66 (1.46, 1.90)

**BMI category**
- Overweight: 0.92 (0.81, 1.04)
- Obesity: 0.92 (0.79, 1.07)

Keeble et al. 2020. *IJERPH*
Age

Child at home

Sex

Education level

Keeble et al. 2020, IJERPH.
variation in online food outlet availability in England

Methods overview

- Data on food outlets registered with market leader (Just Eat) collected through web scraping
  - I. name
  - II. address
  - III. delivery area

- Publicly available data
  - I. 'offline' food environment
  - II. indices of multiple deprivation

- Negative binomial regression models
Online food outlet access in England

29,232 food outlets registered with Just Eat across England in November 2019

Keeble et al. 2021. *Applied Geography*
associations between online food outlet access and
online food delivery service use

Methods overview

• Combination of data from previous studies
  I. International Food Policy Study
  II. Just Eat
  III. publicly available data

• Individual level analysis
  ‘exposure’ to food outlets accessible online

Online food delivery service use
Online food outlet access and online food delivery service use

This association was apparent for adults aged between 18-29 years, those with a university degree or higher, females, and those living with children.
Established knowledge

CUSTOMERS...
demographics of online food delivery service users

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variation in online food outlet availability in England

EXPOSURE...
associations between online food outlet access and online food delivery service use

REASONS...
experiences and perspectives of frequent customers
The challenges. The opportunities. The future.
The pandemic...

Challenges

Number of food outlets registered online vs November 2019
I. Public health concerns related to fast food consumption perpetuated

II. "Dark kitchens"

III. Multiple modes of order == "multiple burdens of exposure"
Opportunities

I. Leveraging online food delivery services for healthier food access
II. Online food delivery services as enablers
III. Changing fast food norms
I. Long-term changes in online food delivery service access and use

II. Understand reasons for online food delivery service use, both initially and repeatedly

III. Changes to neighbourhood food environments, traditional food retail and consumer practices
Final thoughts

I. Further growth forecast
II. Supplementing or substituting
III. Beware of diversification
IV. Consider *possible* online exposure