Work done by analogue techniques stepped away for the new - geographical information systems (GIS) (Clarke, 1998). Changes and recent growth in internet sales have an impact on the traditional shops which introduced the new service – click and collect (Singleton et al., 2016). This paper examines a few factors to seek the place for the new shop with an example of The Co-operative.

This research is based on several data packs – Annual Mid-year Population Estimates 2013, Index of Multiple Deprivation IMD 2019 and Internet User Classification 2018. Choosing criteria for a small corporate c-store with a click and collect include a few factors. According to Berry et al. (2016), workplaces through the daytime population are an important part of the c-stores trade. To use the click and collect facility, the population in the buffer should have the high factor of online shopping prevalence. Income also has an impact on the corporate c-store placement as people working in the city centre are more likely to buy ready-meals (Berry et al., 2016). Competitions should also be considered as the recent expansion of corporate c-stores is highly visible (Wood and Browne, 2007).

Major employers and WZ populations are considered in Figure 1. Eventually selected location shows the high numbers of the working population and demonstrates many major employers in the surroundings. Sales of c-stores are derived from workers that access the site on foot (Berry et al., 2016). Table 1 represents the nigh-time population in the chosen c-store catchment.

Table 1. Population

LSOA	All ages
E01006776	1736
E01033751	1842
E01033752	1698
E01033753	1258
E01033755	1273
E01033756	1351
E01033760	1883
E01033762	1722
sum	12763

Source: ONS, 2013

Student number: 201434271

University Hospital Aintree

Broadgreen Hospital

University of Liverpool

Liverpool John Moores University

Mossley Hill Hospital   Stapeley Hospital

Liverpool John Lennon Airport

Legend

Major Employers

WZ Population

113 - 279

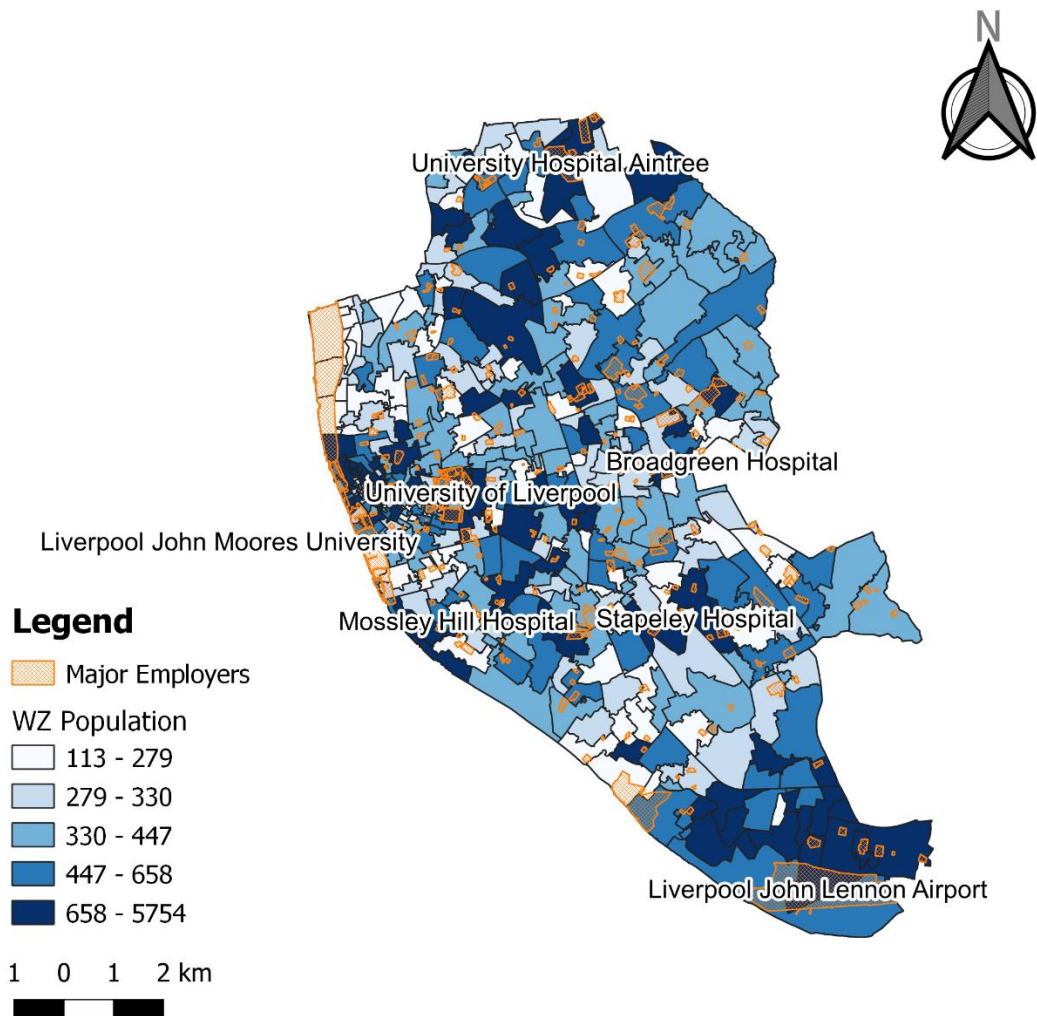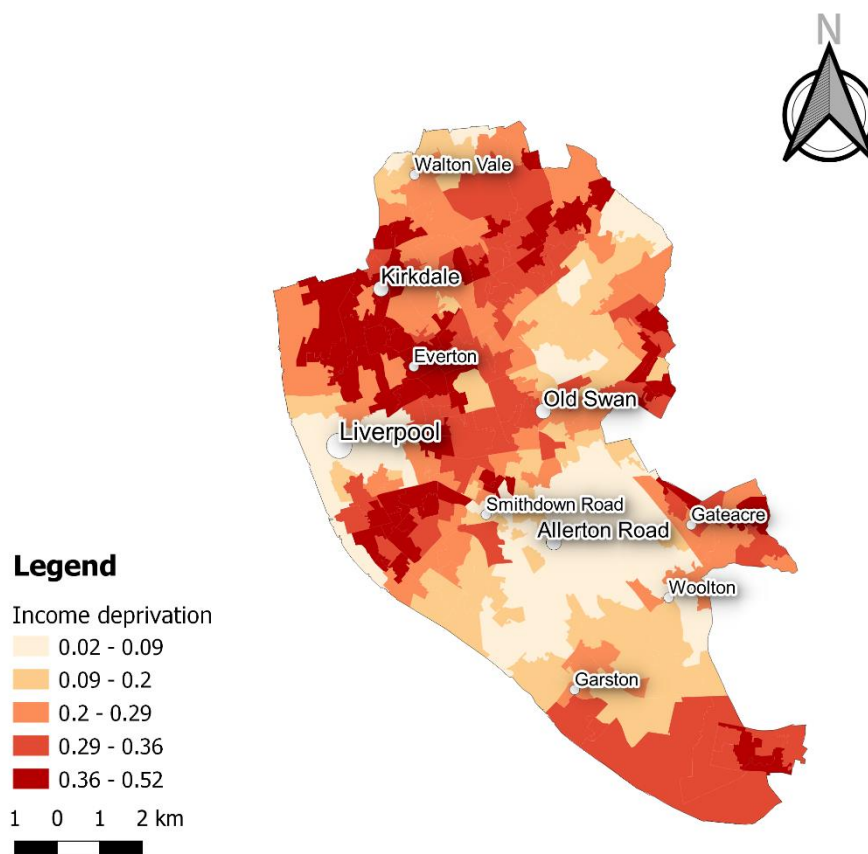279 - 330

330 - 447

447 - 658

658 - 5754

1   0   1   2 km

Figure 1 *Major Employers and WZ (source: ONS, 2013)*

Income deprivation shown in Figure 2 is also important as the paper seeks for the place for corporate c-store which is considered expensive, thus the place for more affluent people.


Figure 2 *Income deprivation (source: IMD, 2019)*

E-resilience brought by corporate stores is the important factor of introducing technologies (Singleton et al., 2016). Figure 3 represents the online shopping prevalence based on the internet user classification.
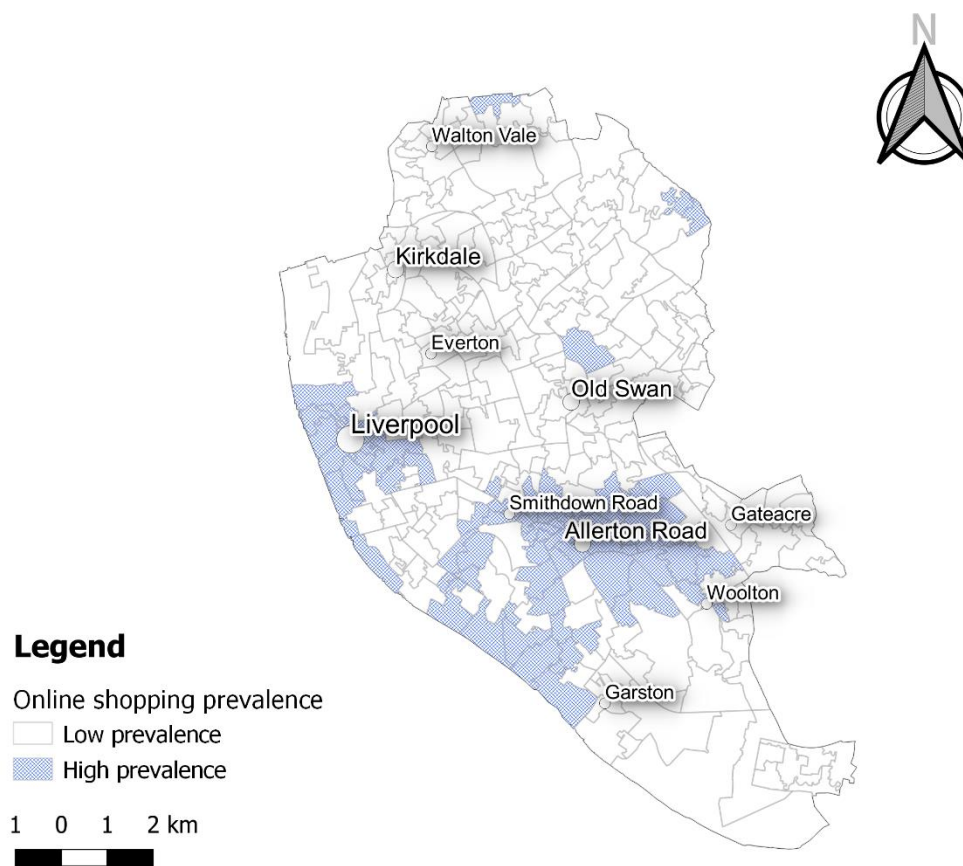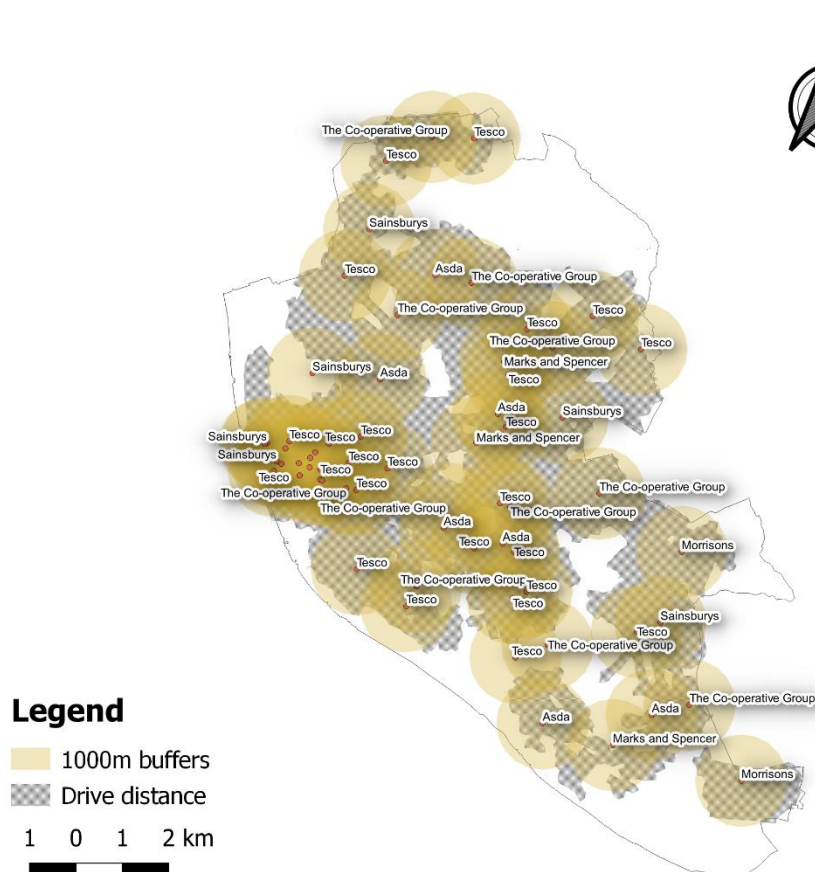
Figure 3 *Online shopping prevalence (source: IUC, 2018)*
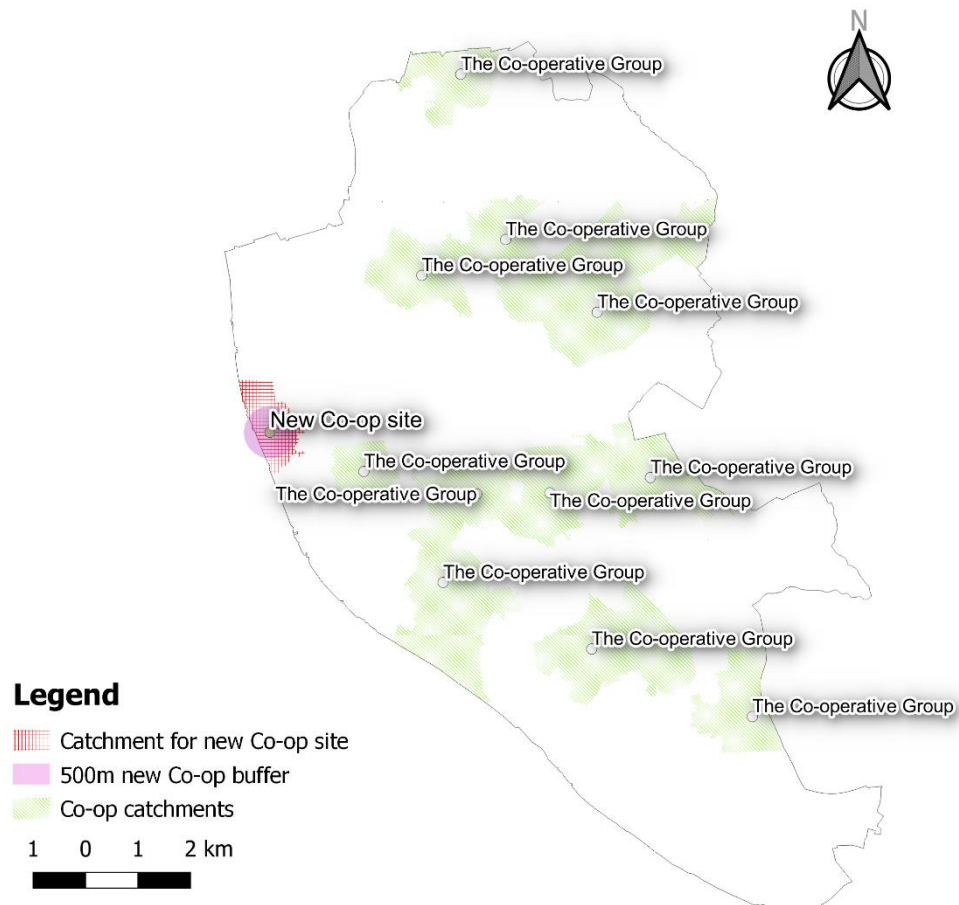
Figure 4 represents the exposure to online shopping.
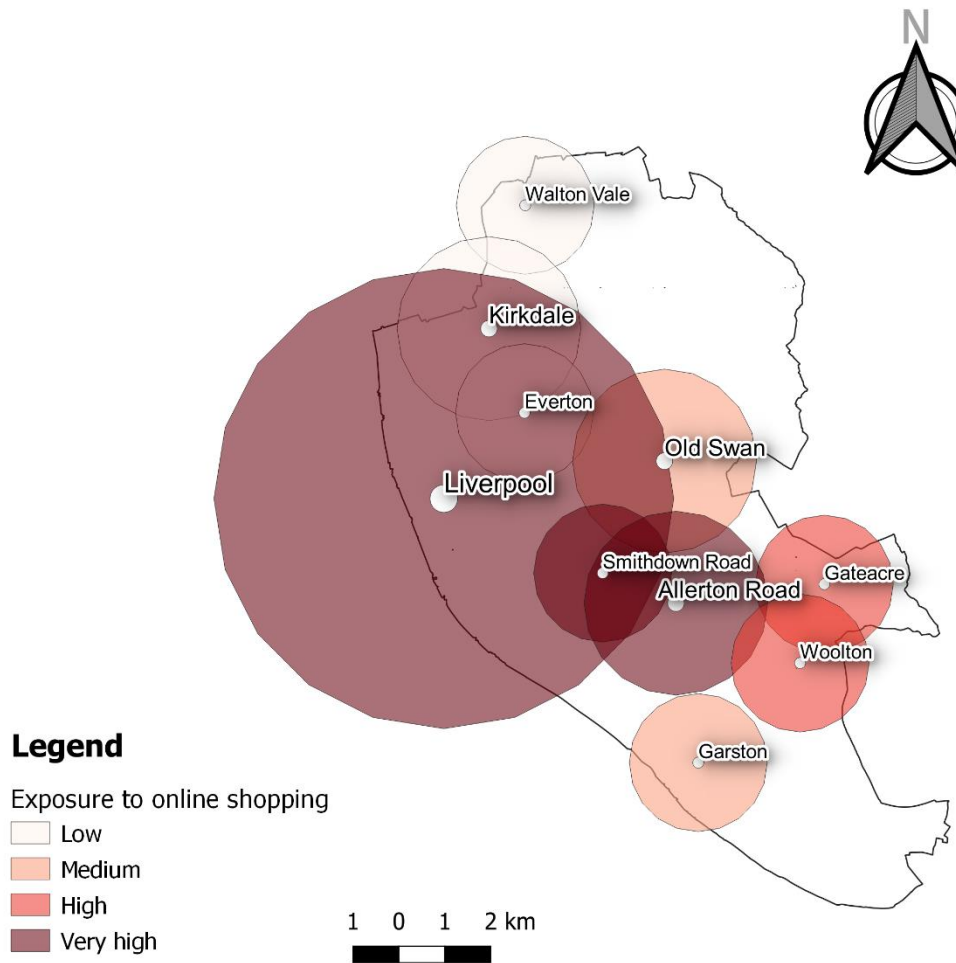
Figure 4 Exposure (source: IUC, 2018)

Competition is high what Figure 5 indicates. However, Liverpool's centre is packed with the multiple c-stores that overlap with the catchments.

Legend

1000m buffers

Drive distance

1 0 1 2 km

Figure 5 Competition (source: ONS, 2013)

Figure 6 represents the final site for the potential shop. Figure 7 shows the street view of the potential building.

The Co-operative Group

The Co-operative Group

The Co-operative Group

The Co-operative Group

New Co-op site

The Co-operative Group

The Co-operative Group

The Co-operative Group

The Co-operative Group

The Co-operative Group

The Co-operative Group

The Co-operative Group

Legend

Catchment for new Co-op site

500m new Co-op buffer

Co-op catchments

1 0 1 2 km

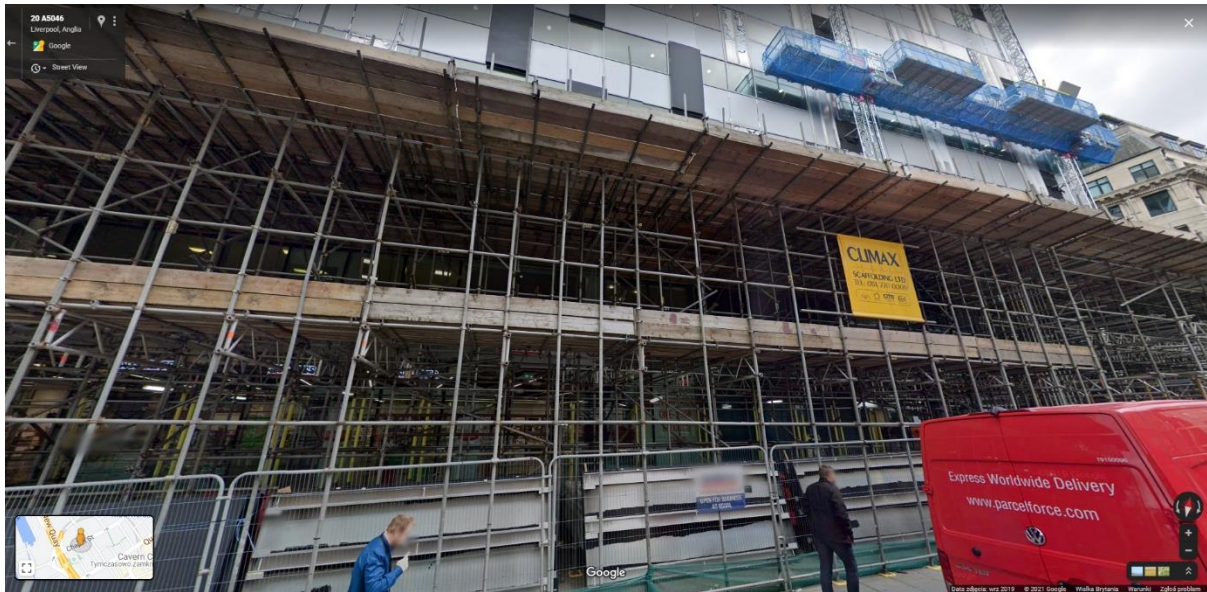*Figure 6* Locatio for new Co-op (source: ONS, 2013)

Figure 7 *Potential building (source: Google street view, 2019)*

In conclusion, the location is based on the analysis of several factors. C-stores are growing because of the influence of foreign discounters and changes in destination shopping places of the less affluent (Hood et al., 2015). However, this paper has some limitations. Catchments and buffers are not the most precise way and it is hard to place the store within the already high competition.

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