



### The Double Jeopardy in high street footfall

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### 1. INTRODUCTION

Footfall underpins every local high street economy. Its density is critical for independent businesses who depend on passing trade and co-creates and conveys an attractive perception of vitality (Braun et al., 2013; GLA, 2022). Footfall density is the result of a competitive process. Although the people on a high street at a given moment have many reasons to be there, they typically know of a choice of locations with which to satisfy their various needs (Graham & Peleg, 2017). Therefore, attracting and maintaining footfall is a pressing place marketing problem for communities, local government, BID management and other stakeholders concerned with town centre viability (Enoch et al, 2022; Ntounis *et al.*, 2021).

Place marketing theory has emerged over more than two decades (Lucarelli & Berg, 2011; Vuignier, 2017), and early conceptual and terminological confusion is clearing (Kumar & Panda, 2019; Warnaby, 2018). Its scope has now extended from regions, cities, and tourist destinations (Kotler et al, 1993), to include town centres and high streets (Evans, 2015; Nathan et al, 2019; Ntounis and Kavaratzis, 2017), although one issue frustrates further applicability. Measurement in place marketing remains an open question, and an important one in the context of the high street, because measurability is essential to communicate, implement and manage policy objectives (Gower and Grodach, 2022).

A part of the difficulty is a lack of understanding of appropriate place-brand marketing goals (Kavaratzis & Ashworth, 2005). In the context of the local high street, we argue that maintaining footfall is a useful objective, one already widely considered in theory and practice, and thus a useful contender as a primary measure of marketing effectiveness. It has a relative meaning (e.g., down 5% on last year), conceptual uses e.g., in categorising a

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3 hierarchy of place (Mumford et al, 2021; Philp, 2021) or as a predictor of sales (Feetham et  
4 al., 2022; Lam et al, 2001; Perdikaki et al., 2012). The footfall metric has further potential. It  
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6 can be considered as a measure of attraction (the relative extent to which a location exploits  
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8 the potential demand from its trade area) and, since the count consists of regular and  
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10 occasional visitors with other definable characteristics, it also reflects retention – that is,  
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12 behavioural loyalty. If the two components could be disaggregated, they would reveal how  
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14 high streets “compete” in the proportions of local and non-local visitors they attract, the  
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16 contributions made to overall vitality over time by regular and occasional visitors, and the  
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18 extent to which consumer segments cluster on certain high streets. This knowledge about the  
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20 target market typically shapes most marketing objectives.  
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27 There is an alignment between such behavioural characteristics and those considered  
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29 by brand marketers. They know that annual sales depend on how many customers buy the  
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31 brand, how often they do so, and which other brands they buy (Ehrenberg et al., 2004).  
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33 Further, many are now aware that these fundamental brand performance metrics are not  
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35 independent (Kennedy & McColl, 2012). Behavioural loyalty outcomes differ little between  
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37 competing brands but are highly correlated with the number of buyers the brand attracts in a  
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39 management period, which makes brand management rather less “anything goes”.  
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44 The relationship is so regular as to be captured in an empirical generalisation, the Law  
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46 of Double Jeopardy (Ehrenberg *et al*, 1990). This states that smaller brands suffer twice, in  
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48 having many fewer buyers than bigger rivals, but who buy the smaller brand predictably a  
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50 little less often. The law is confidently applied by practitioners to predict, benchmark, and  
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52 evaluate marketing performance (Kennedy & McColl, 2012) because the evidence repeatedly  
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54 says that brand share growth is not achieved by targeting loyalty but rather, by attracting  
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56 more buyers (Dawes, 2016; Romaniuk et al., 2018; Sharp, 2010).  
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3 The question addressed here is whether the law of Double Jeopardy and its underlying  
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5 theoretical assumptions might usefully extend to place marketing evaluation on local high  
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7 streets, and particularly to a more comprehensive understanding of the behaviours that  
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9 comprise footfall density. Double Jeopardy has been identified in competitive retail settings  
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11 (Uncles & Kwok, 2009), and shares fundamental theoretical assumptions with established  
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13 stochastic models of geographic competition (Kennedy & Ehrenberg, 2001). Thus, our aim is  
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15 to test the existence and assumptions of the Law of Double Jeopardy against the  
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17 characteristics of high street footfall. Using data collected in the London Borough of  
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19 Lewisham, we ask if a predictable Double Jeopardy relationship exists between footfall and  
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21 the regular usage of nine competing high streets. We then test whether the assumptions of the  
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23 law are supported by examining (1) known regularities in patterns of switching; (2) the  
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25 distribution of regular, infrequent, and new visitors and (3) an absence of segmentation at the  
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27 high street level on variables including socio-demographics, attitudes and intended spend.  
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33 We find a Double Jeopardy characteristic in high street patronage and confirm its  
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35 theoretical assumptions. The paper therefore makes several contributions. We demonstrate a  
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37 method to predict and benchmark average usage frequency of high street visitors from  
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39 footfall density. Second, we demonstrate a method of elaborating footfall data into its  
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41 frequency classes and link this to catchment modelling. Third, by testing theoretical  
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43 assumptions against location choice behaviours we identify commonalities between place and  
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45 consumer goods marketing models, linked by robust explanatory theory. This answer calls in  
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47 the literature (Sevin, 2021; Vladimirov & Warnaby, 2021) by suggesting a new perspective  
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49 on measuring and managing place marketing and offers some practical implications.  
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54 In the next section the theoretical context is explored. The data and method are then  
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56 described, and findings presented. We conclude with a discussion of the implications and call  
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58 for further research.  
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## 2. THEORETICAL CONTEXT

Approaches to place marketing objectives and outcome measures are now briefly reviewed. We differentiate between hard and soft marketing metrics, and demand and supply side views before introducing the Law of Double Jeopardy and its established uses in understanding the behavioural outcomes of marketing interventions.

### 2.1. *The goals of place marketing*

Place marketing attracts theoretical and practical interest (Lucarelli & Berg, 2011) informed by stakeholder groups from urban planning, economic geography, sociology, politics, and business. As a result, although wide ranging ideas have quickly built a critical mass of novel theory, the multidisciplinary approach means that some boundaries have become blurred (Warnaby & Medway, 2013). As one example, perhaps the longest-standing debate has been about the nature and meaning of *marketing* in the context of place. Hospers (2019) summarises the open questions from Kavaratzis & Ashworth (2005) as being to resolve differences between branding and marketing; place and product; policy and politics; and theory and practice. And in this last respect, the field is criticised for lacking empirically tested concepts and models well-enough grounded in theory to be adopted confidently by managers (Kumar and Panda, 2019; Sevin, 2021; Vladimirov & Warnaby, 2021).

Boisen *et al.*, (2018) set out to resolve these issues from an urban planning perspective by aligning place and consumer marketing theory and practice. Their framework clarifies the distinction between place brand, place marketing and place promotion, highlighting the difference between supply side place management activities (place marketing) and demand side outcomes that primarily relate to “*keeping and attracting different target groups to the city*” (p.6). Their approach speaks directly to the problem of high street vitality, and to the proposition that the components of footfall could be useful,

measurable, demand side marketing outcomes. To develop their orientation further, consumer goods marketers want to “to sell more product to more people more often for more money”, where more means not just more than last month, but also more relative to rivals, as outcomes of a competitive process. And so conceptually, “keeping and attracting” easily translates footfall into behavioural demand-side outcomes, the number of buyers (or visitors) attracted and the rate at which they buy (visit) in a fixed period of time.

## 2.2. Place brand equity

By contrast, much attention has been concerned with the supply side – place management – and communicating a place identity and meaning. At the start of the millennium, the focus of the place marketing debate settled on place branding (Zenker and Martin, 2011) and the role of place brand equity (Floris and Kavaratzis, 2014) in developing attitudinal loyalty. Brand Equity had only recently become “one of the hottest topics in business” (Feldwick, 1996 p.10) attracting much research (Barwise, 1993) thanks in part to Kevin Lane Keller’s conceptual model (1993). Keller defined customer-based brand equity as the differential effect of brand knowledge on consumer response to the marketing of the brand. The differential arises because of the depth and breadth of a consumer’s memory structures linking brand awareness with the strength, uniqueness and valence of the brand associations forming brand image. It is a psychological, deterministic construct, proposing a causal link between attitudinal outcomes and a future, biased, behavioural brand response.

Brand Equity is an appealing concept for city or region-brand managers with substantial budgets since it proposes favourable differential effects in the relative ability to attract inward investment or higher tourist visits. For example, Jorgensen (2014) examined the effects of repositioning by prioritising new tangible and intangible brand attributes to create stronger and more favourable perceptions of place. Jacobsen (2012) proposed a place

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3 brand equity model with investment consideration as its dependent variable. But, as Zenker  
4 and Martin (2011) point out, in practice, place brand equity is a problematic outcome  
5 measure. Even if a standard measure of place brand equity could be established, attitude  
6 towards the supply side is a “future-directed performance indicator”, and a “soft” marketing  
7 metric, that is, not often highly correlated with hard outcome measures (Bass et al., 1972;  
8 Hanssens & Pauwels, 2016). Further, managing positioning at a high street level requires  
9 access to data, and complex analysis that is difficult to accomplish locally (Millington &  
10 Ntounis, 2017). In short, if place brand equity is a poor predictor of keeping or attracting high  
11 street visitors it is unlikely to be a useful outcome measure.  
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### 27 *2.3 Place attraction and the target market*

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29 On the other hand, in the economic geography and urban planning literatures “hard  
30 measures” of attraction based on supply side attributes are very well established, and  
31 available to place marketers. The potential sources and flow of visitors to competing city,  
32 town or retail locations are routinely modelled to establish a hierarchy of place defined by  
33 differences in demand at different sites, and the sharing of patronage between those locations.  
34 Central Place Theory (Christaller, 1966; Dennis et al., 2002) originally described a nested  
35 hierarchy of hinterlands within which the same consumers could be expected to visit a large  
36 city for “shopping goods”, a few nearer mid-sized towns and several smaller villages for  
37 convenience goods, thus arriving at the potential demand at each location.  
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50 Gravity models later advanced this idea to account not just for the inverse relationship  
51 between friction of distance and type of goods; they incorporated composite measures of  
52 place attractiveness, bundles of objective attributes at competing locations, to estimate a  
53 potential market share for each in the matrix of its surrounding source areas. Gravity models  
54 have become widely adopted in retail planning to identify the most fruitful locations for new  
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3 stores or retail centres, to estimate the relative competitive effects of subsequent openings,  
4 and project turnover from spatially estimated trade draw (e.g., Guy, 1999). Dolega et al.,  
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6 (2016) successfully extended these uses by estimating a Huff model to define a national  
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8 hierarchy of high streets and town and shopping centres.  
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12 Gravity models predict and explain differences in expected patronage between large  
13 and small retail locations, identifying the spatial extent of demand, and accounting for the  
14 competition between sites in overlapping areas, but have limitations in evaluating place-  
15 marketing outcomes. First, although Dolega et al., (2016) provides an accurate benchmark for  
16 high street attraction, this is necessarily based on objective measures, aggregate sales values,  
17 and simplified assumptions. Huff models cannot account for, or explain brand equity effects  
18 i.e., that the interlocking catchments could be distorted by attitudinal differences to a  
19 particular location in a way that segments users. Second, although they estimate  
20 geographically, and in detail, the potential sources of demand (the target market), they offer  
21 little about the underlying repeat-visit behaviour expected at a location over time; third, like  
22 positioning research, estimation requires analysis and data that may not be available locally.  
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#### 41 *2.4 The Law of Double Jeopardy and its theoretical assumptions*

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43 The most comprehensive view of the behavioural outcomes that marketers attempt to  
44 influence can be found in data that aggregates all the choices *already made* by a population of  
45 interest, across the range of available alternatives, in a fixed time-period. This type of data is  
46 usually obtained from commercial panels with large sample sizes, typically capturing  
47 consumer-goods purchasing or media consumption in a given category. Since reporting is at a  
48 household or individual level, it is possible to extract a market penetration metric for each  
49 alternative (its relative attraction) as well as their average usage frequency, proportions of  
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3 heavy, medium, and light users and switching rates – behavioural objectives of the type  
4 suggested by Boisen et al., (2018) as relevant for place marketers.  
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7 Further, it was noted long ago in this type of data that while the total choices made for  
8 a given offering, and hence its market share, depend on penetration and purchase frequency,  
9 all three are strongly correlated, although usage rates tend to vary far less with size. McPhee  
10 (1963) first noted that less popular comic strips and radio shows were also systematically less  
11 well liked by their audience, naming the phenomenon Double Jeopardy. A similar  
12 observation was widely extended in the repeat-buying of consumer packaged-goods by  
13 Ehrenberg (2000; Ehrenberg *et al.*, 2004) with many further applications subsequently  
14 identified in media and advertising planning and in brand marketing.  
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26 Double Jeopardy is a statistical artefact. Given a particular set of assumptions it *must*  
27 occur (East and Ang, 2017; Ehrenberg & Bound 1993). The assumptions are that (1) across a  
28 market, available choices are perceived to be of equal merit by those that know of them; but  
29 some alternatives are more widely known than others. Under those circumstances, individual  
30 households have the experience to divide choices over different, but limited repertoires, and  
31 are “polygamously loyal” over a sequence of category purchases. Nevertheless, (2) individual  
32 repertoires differ, so the buying of different brands is independent across consumers, but (3)  
33 brands do not differ in how often their customers buy the category. Therefore, when Double  
34 Jeopardy is observed, brand buying in the category cannot be responding to traditional  
35 marketing – no attitudinal positioning effects, no brand segmentation outcomes, no advantage  
36 from attracting and retaining the “heavy half” of category buyers.  
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51 An important aspect of this discovery was that it became possible to benchmark an  
52 expected level of performance for a given brand size in its competitive context; and because  
53 exceptions from the norm are rare (Khan et al., 1988), the benchmarks facilitate realistic  
54 objective setting, and provide a tool with which to evaluate and understand past performance.  
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3 Double Jeopardy is obvious to the eye when tabulated performance metrics for  
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5 competing brands are ordered by brand size. Moreover, the relationship between penetration  
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7 (usually denoted  $b$ ) and average purchase frequency ( $w$ ) in the category can be described  
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9 mathematically as:  
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$$12 \quad w(1 - b) \cong \text{a constant (usually denoted } w_0)$$

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19 The constant is estimated as the mean of the values of  $w(1 - b)$  across the range of competing  
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21 brands, and the expected purchase frequency for any brand in the category predicted from its  
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23 actual or planned penetration, using the expression  $w_0/(1 - b)$  (See Ehrenberg *et al.*, 1990).  
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### 28 *2.5 Extending the Law of Double Jeopardy to the local high street.*

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30 Consumer brand performance in Double Jeopardy modelling shares many assumptions of the  
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32 Huff model. Both assume choice follows a stochastic process. Bigger brands are more widely  
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34 known, and this is analogous to busier high streets - both reach further into the potential  
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36 market, attracting more buyers. Any perceived differentiation is either competed away, or  
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38 irrelevant because most buyers are also buyers of other brands, experienced enough to switch  
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40 between familiar alternatives, large and small, on different occasions. This is analogous to the  
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42 predicted hierarchies of place that reflect the duplicated patronage between busier, more  
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44 distant locations and quieter more proximate ones.  
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49 Although panel data that captures high street usage is rare and expensive, those  
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51 concerned with the local high street economy already consider consumer behaviour in this  
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53 way. If a location is declining in vitality, is that due to fewer new visitors, or because the  
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55 local catchment is becoming less loyal to the location? Which other high streets then pose  
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57 more (or less) of a threat? And which visitors will be the most responsive to new investment?  
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3 Data are routinely collected on local high streets as footfall counts and through visitor  
4 surveys. If the two are collected simultaneously, they can be matched to represent penetration  
5 and frequency (the average rate of self-reported visiting). Critically, footfall and market  
6 penetration can be related conceptually, as an observed, time-dependent proportion of a given  
7 population, and so interpreting data across *competing* high streets might reveal a Double  
8 Jeopardy relationship in market structure. If so, it would be possible to benchmark high street  
9 performance against expected outcomes; diagnose and specify appropriate interventions to  
10 boost attraction rates or increase visit frequency; and design placemaking strategies relative  
11 to a competitive set. To test this idea, we ask:

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24 **RQ1: Is a predictable Double Jeopardy relationship observable in high street usage?**

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28 If a Double Jeopardy characteristic is identified, it would become important to assess if its  
29 theoretical underpinning extended to the new setting. The first assumption is that consumers  
30 can comfortably split their category purchases among a repertoire of familiar brands. For  
31 consumer goods, experience makes it is easy for shoppers to do so, which led Andrew  
32 Ehrenberg to remark frequently to managers “*your customers are really other people's*  
33 *customers who occasionally buy from you*” (Sharp et al., 2002, p7). That is, a large of part of  
34 marketing is maintaining brand share by nudging “your” lighter buyers back to your brand.  
35 The split loyal characteristic of Double Jeopardy can be recognised by comparing average  
36 purchase frequencies for brand and category. Average category purchase frequency is  
37 substantially higher. If buyers devoted all category purchases to one brand the two metrics  
38 would be close, but the normal pattern is that 100% loyal customers are usually light category  
39 buyers, and rather few in number (Ehrenberg, 2000).

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56 The related question is this: if loyalty is polygamous, which *other* brands do my  
57 customers mostly buy? Again, there is a normal pattern to switching in a Double Jeopardy  
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3 category, which is that brands share customers predictably, in line with size and not  
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5 positioning –every brand shares more of its buyers with bigger rivals and fewer with smaller  
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7 ones. With some functional exceptions (e.g. between diet and regular colas) the “closest  
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9 competitor” is simply the alternative with the most customers. Patterns of switching in time  
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11 are analogous to the hierarchies of place established by geospatial models, which predict  
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13 geographically wider switching to bigger locations.  
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17 Double Jeopardy suggests the high streets visited by a sample would be wide ranging  
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19 and loyalty metrics correlated with “busyness”, so polygamous loyalty could be evaluated as  
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21 (1) the relative proportion of switching visitors against observed location footfall (2) the  
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23 average switching at high street versus borough level, and (3) evidence of unusual geographic  
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25 or differentiated clustering of switchers *not* apparently related to footfall. The necessary  
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27 metrics can be obtained from one switching question in a survey, matched to simultaneously  
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29 collected footfall data. Hence, we can ask:  
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### 32 33 **RQ2 What is the nature of polygamous loyalty in high street choice?** 34 35

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37 In consumer panel data, summarised in each brand average purchase frequency metric there  
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39 is a broad heterogeneity in customer repeat rates (i.e., the proportions buying 1,2,3... $n$  times  
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41 in a period) but, importantly, the second Double Jeopardy assumption is that this distribution  
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43 is broadly similar in shape between rival brands. The most infrequent buyers account for the  
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45 largest proportion of each customer base, but together make a high contribution to total sales.  
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47 Success for any brand implies maintaining or growing the large number of light buyers in  
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49 each period, as well as the repeat rate of the few heaviest (Dawes, 2016; Graham & Kennedy,  
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51 2021). Of the two groups, the lightest are the harder to manage, as individually they engage  
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53 with the brand so infrequently.  
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3 The same pattern was shown in retail store patronage in the UK and China (Dunn *et*  
4 *al.*, 1983; Uncles & Kwok, 2009), and in online grocery store use (Trinh *et al.*, 2017). Given  
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6 a Double Jeopardy finding, we would expect the same characteristic to apply to high street  
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8 footfall.-There are countless reasons why any individual would visit a given high street on  
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10 any one occasion; but it can be assumed that across all borough residents, propensities to visit  
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12 there, although different, would probably be quite steady in the long run given the relative  
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14 amenities or the proximity to home, or work. It implies a zero-order process, that is, the  
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16 population are already experienced in the available choices, and have established a limited  
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18 but fixed repertoire, activated over time. No further learning will take place. This is the  
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20 assumption in geospatial models too, where a fixed probability of patronage is estimated in  
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22 each source zone, and friction of distance parameters are of similar shape but differ in scale  
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24 (Dolega *et al.*, 2016, p.84).  
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31 An important and overlooked aspect of this heterogeneity is the impact it has over  
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33 time on the accumulation of *unique* buyers (or here, visitors) to the customer base. The most  
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35 regular visitors will be accounted for quickly and seen frequently, often daily. Yet many of a  
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37 high street's predicted users will not visit that high street in a week, or even a month, but  
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39 together will contribute a significant proportion of footfall over time. For place marketers, it  
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41 should be important to understand how light and heavy user classes contribute differently to  
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43 high street vitality, and the implications of accumulating penetration, so it is helpful to know  
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45 if this heterogeneity is consistent between locations with different footfall densities, hence:  
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49 **RQ3. Is the distribution of visit heterogeneity consistent between high streets?**  
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55 High streets and town centres may be more or less connected, more or less proximate to their  
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57 communities; their public realm may be privately owned or civically managed (Carmona,  
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59 2015; Minton, 2012), each with a different mix of stores, markets, and leisure amenities, that  
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3 define a distinctive identity. The largely organic development of a local high street might  
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5 promise the possibility of a loyalty-based segmentation based on some special characteristic,  
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7 but a further assumption of Double Jeopardy (and of gravity models) is that despite  
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9 differences in scale there is little difference in the core offer at competing locations; the  
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11 individual decision to visit is a satisficing one on any given occasion. As Ehrenberg et al.,  
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13 (1990, p.85) note –rival offers are considered “*of equal merit*” by their regular users.  
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17 An objective measure included in the attractiveness score composed by Dolega et al  
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19 (2016) is the retail mix; the proportion of space devoted to comparison, convenience, service,  
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21 and leisure offers. This can be compared regardless of location size, hence:  
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#### 24 **RQ4a: To what extent are competing high streets “of equal merit”?**

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29 The retail mix is however a broad categorisation. It does not differentiate between  
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31 independent and multiple businesses, or account for perceived differences in public realm or  
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33 geographical location, therefore even if high streets appear broadly substitutable on that  
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35 measure, the user-profiles on a range of demographic, attitudinal and behavioural measures  
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37 might still identify “brand-level” segmentation between certain high streets based on  
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39 subjectively perceived differences. It might be expected that since high streets serve local  
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41 communities, and in concentrated urban settings there are large demographic differences in  
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43 close proximity, place brand equity effects might emerge as deviations from the Double  
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45 Jeopardy relationship and would be reflected in the visitor profiles on Lewisham high streets.  
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49 A great deal of empirical evidence (e.g., Hammond *et al.*, 1996) suggests that the user-  
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51 profiles of competing brands differ remarkably little. That work was later extended to retail  
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53 store choice in Kennedy & Ehrenberg (2001) with replications in services, durables and  
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55 grocery in various countries in Uncles *et al.*, (2012). These studies profile users of competing  
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57 market offerings on a range of measures and calculate scatter using Mean Absolute Deviation  
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(MAD). Uncles *et al.*, (2012) established a benchmark MAD of around 5, below which there is considered little managerial significance. Extending this result to the users of competing high streets would add support to the independence assumptions of Double Jeopardy, and suggest that target marketing on a demographic, behavioural or attitudinal basis would be a counter growth strategy, simply limiting the potential for further attraction, hence:

**RQ4b: Are “brand-user profiles” segmented on competing high streets?**

### 3. DATA and METHOD

Our data were collected as part of a larger study commissioned by the local economy and partnerships team at Lewisham Council (Lewisham Council, 2021). The study was undertaken on nine high streets across the borough in May 2021 four weeks after restrictions on non-essential retail were lifted. The research involved (a) an audit of all trading businesses within the designated high street areas (b) footfall counts sampled at specified locations, days and times (c) street intercept visitor surveys ( $n = 640$ ) and (d) business owner interviews.

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Please insert Table I about here  
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Table I describes the high streets observed. As might be expected the substantial differences in relative footfall and business numbers are strongly correlated ( $r = 0.77$ ). Apart from Deptford High Street, busier locations generally have fewer independent businesses, while more affluent locations (higher single-family occupancy) have fewer voids. The most important characteristic of the dataset is that high street vitality can be interpreted in a competitive context, so it is an appropriate setting within which to identify a Double Jeopardy relationship in high street vitality (RQ1) and test its theoretical assumptions (RQ2 – 4b).

### 3.1 Behavioural loyalty metrics and analysis

Our metrics were derived as follows:

*Penetration* of high street visitors was estimated from average hourly footfall. Footfall counts were taken at each high street and averaged to produce a mean hourly rate for each location; averages were summed to give a borough value. These values can then be expressed as a proportion of a “relevant population” (Dunn *et al* 1983), here taken as the population of the borough aged over 15, calculated as:

$$\text{Penetration \%} = \frac{\text{Location footfall}}{\text{Borough population}} * 100$$

*Repeat Rate* is calculated from survey data collected on the days of the counts. Respondents were asked: “What was the last high street or shopping centre you visited? (Name one). For each high street, the analysis provided the proportion of the sample repeating; switching from another high street within the borough; and switching from locations beyond (RQ2).

*Average Frequency*: Repeat rates are expected to vary in line with penetration in a Double Jeopardy context, but the model requires a value for  $w$  (average frequency) to benchmark the relationship. The same question captures two successive location visits at  $t_1$  and  $t_2$ , and since at  $t_2$ ,  $w = b$ ,  $w$  for the sample at a location can be calculated using the repeat count:

$$\text{Average Visit Frequency to location Y} = \frac{\text{Total location Y visits at } t_1 + t_2}{\text{Visitors at location Y at } t_2}$$

These two metrics are sufficient to expose and model the Double Jeopardy relationship (examples in Bennett *et al.*, 2000: Bennett & Graham 2010), even though no time frame is available. But to answer RQ3, a time frame is needed to capture the difference between



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3 regular and occasional visitors. The survey included a visit frequency scale from which it was  
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5 possible to estimate the repeat probability of respondents *on the next day*, and the weekly  
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7 footfall accumulation along with its frequency distributions.  
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10 Finally, to test the assumptions that rival high streets are undifferentiated (RQ4a) and  
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12 that users of one are not segmented from users of another (RQ4b) we compared high streets  
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14 on their retail mix and visitor profiles, using Mean Absolute Deviation (MAD) statistics.  
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## 21 4. RESULTS

22 The research questions are now answered in turn.  
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### 25 4.1. Double Jeopardy (RQ1)

26 A Double Jeopardy relationship is clearly observable in the data and the model described in  
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28 section 2.4 provides a good fit. Across the nine high streets, there is a strong correlation ( $r =$   
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30 0.8) between observed hourly footfall ( $b$ ) and “loyalty” ( $w$ ), the average frequency of the  
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32 visitors on each high street across two occasions. The busiest high street (Deptford) attracted  
33  
34 six times as many hourly visitors as the quietest (Honor Oak Park), but those visitors were  
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36 found to be on average only slightly more “loyal” at the busier location. Assessing model fit  
37  
38 broadly, most values sit within 10% of their benchmarks (see Khan *et al.*, 1988).  
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48 Please insert Figure 1 about here  
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52 The fitting highlights exceptional patterns at Deptford and Honor Oak (a “niching” pattern,  
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54 where the visitors show too much loyalty for their overall number), and at Blackheath (a  
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56 change of pace performance, where the visitors are less loyal than expected for their number).  
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59 These variances have managerial implications in the context of Double Jeopardy theory and  
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3 the assumptions of the Huff model We return to these in the discussion, but in summary, it  
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5 appears that the Law of Double Jeopardy extends to a place marketing context and can be  
6  
7 applied usefully to benchmark outcomes and diagnose deviations from them.  
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#### 10 11 12 *4.2 Polygamous loyalty (RQ2)* 13

14 Table II reflects the Double Jeopardy characteristic in high street repeat rate, and in the  
15 proportions switching *in* from within the borough (smaller high streets have more one-time  
16 users hence a negative correlation of -0.8). High street visitors thus split choices across  
17 alternatives, with loyalty in line with high street popularity. Figure 1 shows average  
18 frequency on any Lewisham high street to be 1.2, while the frequency within the borough is  
19 higher at 1.5; both values are below 2 (the maximum number of occasions here), so visitors  
20 on any high street are likely to be the users of other high streets who sometimes visit this one.  
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39 Only half of those on any Lewisham high street had been in the borough last time. The  
40 remainder named a total of fifty-eight further destinations, of which the most popular were  
41 the West End (8% of the total sample), Bromley (6%), Stratford Westfield (4%) and Peckham  
42 (3%). Other, less popular, alternatives were dispersed across London and beyond. No single  
43 major competitor is apparent. The biggest rival for Lewisham footfall appears to be either the  
44 most accessible, or the largest locations. While gravity models would suggest this to be the  
45 case from the source areas, here we can see the outcome on the high streets of interest, and  
46 our analysis highlights how Deptford and Catford draw from slightly more local catchments,  
47 Lewisham and Blackheath from further afield.  
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### 4.3 Heterogeneity in visit frequencies (RQ3)

The self-reported heterogeneity in visit frequency was collected in the survey. The distribution was quite consistent between high streets, and an average is shown in Table III. It is the reverse of the shape expected from most Double Jeopardy studies, being skewed to regular visitors. About 40% said they were daily or near daily visitors, while 26% said they visit very occasionally. A further third at each location said they visit two or three times a week. But care is needed to understand the place marketing implications from these apparently highly loyal behaviours.

Extrapolating from the responses, a little less than half the “two or three times a week” visitors, and slightly fewer than the 40% who visit almost every day would be found on the same high street tomorrow. Given that footfall fluctuates from day to day, but not dramatically (exceptions being a market day or weekend/weekday differences in some locations), then over two days, although the footfall *count* will double, the number of unique visitors attracted will rise only by about 50%, with the additional footfall made up of more occasional visitors. As the number of unique visitors continues to accumulate in this way over the course of a week, an important shift in the behavioural loyalty of that footfall must come about. The proportion of regular visitors falls as the number of occasional visitors rises. Our rule-of-thumb estimate in Table III shows that by the end of one week the daily visitors will make up only 14% of the *total* footfall accumulated and the lightest visitors about half, which is a far closer representation of the Double Jeopardy expectation.

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Please insert Table III about here  
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From the survey results, Table IV demonstrates a strong relationship between frequency and proximity on each high street. The most infrequent visitors are the ones least likely to live or

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3 work locally - over half (54%) of the lightest visitors each day. The *daily* pattern therefore  
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5 closely reflects the expectations of geospatial models but does not represent the geographic  
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7 implications in the accumulation of infrequent visitors. This is important to marketers  
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9 because these visitors will become increasingly important over the course of time and are also  
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11 more likely, individually, to report a higher intended spend.  
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#### 20 21 22 23 24 *4.4 High streets of equal merit (RQ4a)*

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26 The retail mix at each location is remarkably constant when assessed using Mean Absolute  
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28 Deviations. In Table V the category means in the top row show that Services are typically the  
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30 largest part of the high street offer (34%), and Comparison retail less than a quarter (22%).  
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32 The MAD statistics for column and row values describe the scatter of absolute differences for  
33  
34 each category, and for each high street. All categories of the retail mix are close to the  
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36 benchmark value of 5, the widest difference being in comparison retail (but even here a MAD  
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38 of only 6.0). There is little difference across high streets (a MAD of 4.5), so although very  
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40 different in size (an important component of attractiveness), each appear similar in mix.  
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#### 50 51 52 53 54 *4.5 High Street user profiles (RQ4b)*

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56 User profiles on each high street also differ little – no single high street appears to be drawing  
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58 a different type of visitor. A range of behavioural, attitudinal and socio-demographic  
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3 measures are evaluated in Table VI. Absolute deviations from mean values (not response  
4 rates) are summarised in the column and row averages. Differences across socio-economic  
5 (live locally; covid-related unemployment in the family; consumer confidence) and  
6 behavioural variables (intended spend; stated visit frequency) are below the benchmark of 5,  
7 although attitudinal variables (What most attracts you to this high street? This high street is a  
8 good place to...) are rather more skewed.  
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25 The differences are informative, because they highlight brand knowledge of functional  
26 differences between locations held by their visitors; and differences in evaluative response  
27 not allowed for either in Dolega et al., 2016 or in Double Jeopardy theory. For example, from  
28 Table V Blackheath has rather fewer leisure outlets than expected, and yet its visitors are  
29 rather more likely to describe it as “A good place to meet friends” or “A good place to eat  
30 and drink” than visitors on other high streets. Visitors at Blackheath are also less likely to be  
31 local and more likely to visit less often, suggesting the location is rather widely seen as a  
32 leisure destination, and thus not competing directly with other high streets. This in turn is  
33 some explanation for its poor fit against its [Double Jeopardy](#) prediction.  
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45 Honor Oak has relatively more convenience stores than average, but the least stores  
46 and the lowest footfall. It would therefore score low on attractiveness, except that it has a  
47 multiple supermarket acting as an anchor (a component of attractiveness for Dolega et al).  
48 But here instead of drawing more footfall from a wider catchment, the footfall is niching; that  
49 is, it remains low and local, but its visit frequency is higher than expected. This might be  
50 explained by its score on: “What attracts you here? A particular shop” which shows a strong  
51 deviation from the MAD benchmark.  
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## 5. DISCUSSION & CONCLUSION

In answering the call for more empirical and theory driven measures of place marketing effectiveness, we have drawn on a developed body of marketing knowledge to examine its application in the context of high street vitality. We derived a parallel between the penetration and purchase frequency metrics adopted by consumer goods marketers with the footfall and visit frequency metrics that capture the health of a local high street economy. In evaluating high street performance on that basis across a competitive set of nine locations in one London borough, we found a predictable Double Jeopardy relationship between relative footfall densities and the visit frequencies of that footfall. The theoretical assumptions of the law were supported, offering explanations for behavioural regularities and norms that are potentially useful in shaping and evaluating place marketing priorities and objectives. We now discuss these findings in more detail.

### 5.1 Discussion

**Double Jeopardy** theory appears to provide a useful extension to stochastic geospatial models as these are further extended to describe high street performance. Those models can predict the spatial sources of visitor flow to define a target market for each competing location. They can predict total demand. But the Double Jeopardy in visitor outcomes we have demonstrated extends those expectations in time by describing in detail the behavioural characteristics of repeat visiting at each location that marketing hopes to influence. The model provides a relatively simple way of benchmarking the relative contributions made by unique and repeat visitors to expand the understanding of location footfall. The distribution of visit frequencies is broadly equal across competing high streets, as it is for purchase frequencies across competing brands. But once footfall is considered not in narrow cross section, but as a cumulative penetration metric, then the contribution made to vitality by both regular and

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3 infrequent visitors over time implies that no marketing strategy should prioritise one group  
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5 (e.g., the very local community) over another. The potential in the furthest catchments should  
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7 not be ignored as a source of visitors, because over time this part of total footfall is expected  
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9 to accumulate.  
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12 Using Double Jeopardy benchmarks, our analysis highlighted interesting exceptions  
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14 to expected patterns. At Deptford we found a slightly higher than expected “loyalty” for the  
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16 number of visitors, and at Blackheath many users were drawn from further afield visiting the  
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18 high street only occasionally. The model fit can therefore be used to understand high street  
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20 performance, and shape potential marketing strategies for its development: Deptford High  
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22 Street is (surprisingly) underperforming as an occasional destination, while Blackheath is the  
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24 reverse; it has the potential to improve its draw among a local population as a shopping high  
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26 street while developing as a leisure destination too.  
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### 33 *5.2 Implications for theory*

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35 We make three contributions to place marketing theory. First, we have demonstrated that a  
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37 robust empirical generalisation in marketing extends from the interpretation of consumer  
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39 brand performance to describe competitive outcomes on local high streets. Since the  
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41 theoretical assumptions underpinning Double Jeopardy are supported, the findings advance  
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43 established theory to this novel context.  
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47 The second contribution expands on the first, offering a simple framework to  
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49 decompose a footfall metric into its expected distribution of frequencies and describe the  
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51 accumulation of visitors over time. This has implications for target marketing.  
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55 Third, it might seem surprising that high street user-profiles are not segmented, and  
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57 locations hardly differentiated in their retail mix. There are obvious *apparent* differences  
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59 between locations, and these are probably reflected in the more widely dispersed MADs  
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3 found for attitudinal user profiles (Table VI). Yet even though these differences imply the  
4 effects of consumer-based brand equity, they do not seem to result in any unusual levels of  
5 behavioural loyalty suggesting “satisficing” choices are being made. Therefore to increase  
6 attraction, any high street needs to appeal to the broadest not the narrowest positioning.  
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### 10 11 12 13 14 *5.2 Implications for practice*

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16 Local economy managers, and policy makers face the same challenge as any marketers  
17 seeking to grow a brand. The first call is for more visitors. Or footfall. The Law of Double  
18 Jeopardy highlights that a brand increases its share mainly through the addition of large  
19 numbers of occasional buyers and a few heavy ones; and that in decline the reverse is true  
20 (Dawes, 2016). Research by the Centre for Cities (2022) has suggested that it was lighter  
21 frequency visitors that were largely missing from local high streets during lockdowns, and  
22 although many home-workers became regular visitors to their local high street, the outcome  
23 overall was reduced footfall. So this begs the question, from where will any new visitors  
24 come? Lewisham has a steady total population from week to week making footfall a zero-  
25 sum competition within the borough and more broadly.  
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39 Geospatial models predict an expected share of patronage for a high street location in  
40 its source areas, and therefore we have shown that there is both an expected penetration  
41 metric located in space, and a correlated loyalty metric located in fixed time. The first  
42 practical implication for marketers is to ascertain that the high street is achieving its fair share  
43 of the demand from its total trade areas – and take steps to build attraction rates from them if  
44 not. Given that the location of potential visitors is known, and for smaller high streets,  
45 geographically limited, this is a relatively simple matter of target marketing.  
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55 Second, it is relatively easy to reach a high street’s regular visitors; but harder to  
56 promote to the larger number who live further away, visit occasionally, but spend more. In a  
57 Double Jeopardy setting, marketing interventions are required that build mental and physical  
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3 availability more widely to improve competitive outcomes (Sharp, 2010). The best  
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5 interventions are those that make the brand easy to think of and easy to buy, particularly  
6  
7 among its lightest users. For high streets, that means maintaining and building a broader  
8  
9 consumer knowledge of what goods, services and experiences can be found on a high street  
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11 communicating to strengthen the mental maps of the wider population that link that  
12  
13 knowledge to connections and place, particularly where market targets have easy access.  
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17 Third, the individual businesses on a high street consider themselves to be in  
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19 competition with each other: it is true that they are, but the more critical level of competition  
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21 is for footfall between high streets. Our findings suggest physical place should be managed  
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23 relative to its competitive set, not to be perceived as different, but as *Simply Better* (Barwise  
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25 and Meehan, 2004), maintaining the best possible offer within a balanced retail mix.  
26  
27 Positioning and differentiating are dangerous strategies in this context because they only limit  
28  
29 potential footfall. While we found Blackheath was perceived to be a “good place to meet  
30  
31 friends” it draws more footfall by serving other needs too - thus measures of high street  
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33 attractiveness are informative to encourage and shape place development, particularly where  
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35 they may highlight an under-represented part of the retail mix.  
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40 Finally, an opportunity exists where development brings increasing residential density  
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42 around a high street. This is a rare chance to increase high street vitality, but support may be  
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44 called for to ensure that existing traders are adapting and communicating their offer to meet  
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46 the needs of a broadening and of an existing demographic, to attract and keep new footfall.  
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### 51 *5.3 Limitations and further research*

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53 There are some limitations in the study. It is not yet known how the findings might generalise  
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55 to other boroughs cities or regions, although they indicate a wider regional approach would  
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57 be informative.  
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3 A second limitation is in modelling visitor frequencies. The likely managerial under-  
4 estimation from survey data of lighter visitors is an important contribution, given their higher  
5 spending intentions, so further replication is needed. The usual model for this is an NBD or  
6 NBD-Dirichlet and studies have established that it is possible to estimate these from survey  
7 data (e.g., Nenycz-Thiel *et al.*, 2017; Wright *et al.*, 2002). Both require an accurate  
8 penetration metric, and this could now be ascertained using a high street level Huff model.  
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12 Finally, there may be a finer grain to the Double Jeopardy relationship than the  
13 current data supports. For example, it would be informative to explore variations in repeat  
14 visit propensities in high street footfall at different times of day and night, days of the week  
15 and at retail locations other than high streets. Our approach of identifying regularities in  
16 many sets of data is well-suited to the interrogation of mobile geo-location data or resident  
17 panel datasets in this regard, and both lend themselves to extensive stochastic modelling.  
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### 33 *5.4 Conclusion*

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35 The impact of Covid-19 was a series of universal and dramatic shocks to established  
36 shopping behaviour. Patterns of demand shifted from town centres to suburban high streets,  
37 from offline to online, from inside to outside premises, to unusual times of day, and to once  
38 unfamiliar stores. These changes were not all persistent (Centre for Cities, 2022), but  
39 although footfall on many local high streets has recovered almost to pre-pandemic levels it  
40 still shows little growth. Three contributions in this paper might assist a place marketing  
41 response to the continuing challenge of long-term high street recovery. The first is to  
42 highlight the additional value of footfall counts that can be obtained by disaggregating the  
43 behavioural components - attraction, repeat and switching - because each requires a different  
44 marketing response. The second is therefore to demonstrate a practical way to derive  
45 benchmarks for all three metrics, so that investment outcomes may be evaluated on hard  
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metrics. And finally, we have shown that although these ideas are new to place marketing, robust and existing theory appears to extend in ways that may now enable stakeholders to better understand and plan confidently for the Double Jeopardy in high street footfall.

## REFERENCES

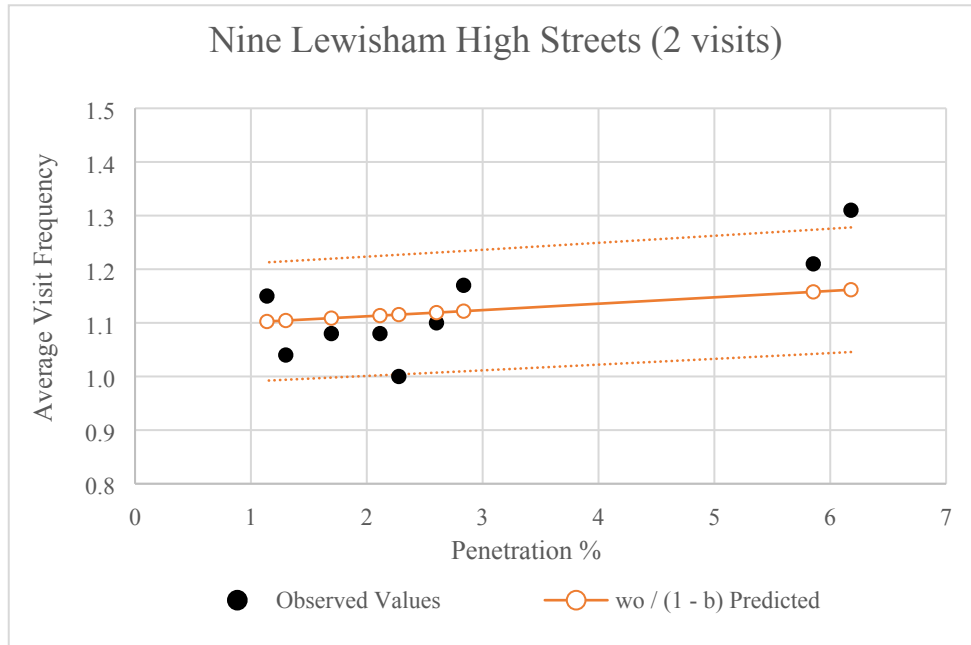
- Barwise, P., & Meehan, S. (2004). *Simply better: Winning and keeping customers by delivering what matters most*. Harvard Business Review Press.
- Bass, F. M., Pessemier, E. A., & Lehmann, D. R. (1972). An experimental study of relationships between attitudes, brand preference, and choice. *Behavioral Science*, 17(6), 532–541.
- Bennett, D. R., Ehrenberg, A. S. C., & Goodhardt, G. (2000). Two purchase analysis of brand loyalty among petrol buyers. *ANZMAC, Gold Coast Australia*, 29.
- Bennett, D., & Graham, C. (2010). Is loyalty driving growth for the brand in front? A two-purchase analysis of car category dynamics in Thailand. *Journal of Strategic Marketing*, 18(7), 573-585.
- Binet, L., & Field, P. (2009). Empirical generalizations about advertising campaign success. *Journal of Advertising Research*, 49(2), 130-133.
- Boisen, M., Terlouw, K., Grootte, P., & Couwenberg, O. (2018). Reframing place promotion, place marketing, and place branding-moving beyond conceptual confusion. *Cities*, 80, 4-11.
- Braun, E., Kavartzis, M., & Zenker, S. (2013). My city–my brand: the different roles of residents in place branding. *Journal of place management and development*, 6(1), 18-28.
- British Retail Consortium (2022) *Footfall Making Strides* Oct 7<sup>th</sup>, 2022. Available at: <https://brc.org.uk/news/corporate-affairs/footfall-making-strides/> Accessed October 15<sup>th</sup>, 2022.
- Carmona, M. (2015). London's local high streets: The problems, potential and complexities of mixed street corridors. *Progress in planning*, 100, 1-84.
- Centre for Cities (2022) *Cities Outlook*, Centre for Cities January 2022 available at: <https://www.centreforcities.org/publication/cities-outlook-2022/> Accessed Oct 14<sup>th</sup> 2022.
- Dawes, J. G. (2016). Brand growth in packaged goods markets: Ten cases with common patterns. *Journal of Consumer Behaviour*, 15(5), 475-489.
- Dennis, C., Marsland, D., & Cockett, T. (2002). Central place practice: shopping centre attractiveness measures, hinterland boundaries and the UK retail hierarchy. *Journal of Retailing and Consumer Services*, 9(4), 185-199.
- Dolega, L., Pavlis, M., & Singleton, A. (2016). Estimating attractiveness, hierarchy and catchment area extents for a national set of retail centre agglomerations. *Journal of Retailing and Consumer Services*, 28, 78-90.
- Dunn, R., Reader, S and N. Wrigley N. (1983) An Investigation of the Assumptions of the NBD Model as Applied to Purchasing at Individual Stores *Journal of the Royal Statistical Society. Series C (Applied Statistics)*, 32(3) 249-259
- East, R., & Ang, L. (2017). Making progress in marketing research. *Australasian Marketing Journal*, 25(4), 334-340.

- 1  
2  
3 Ehrenberg, A.S.C. (2000). Repeat Buying: Facts, Theory and Data. *Journal of Empirical*  
4 *Generalisations in Marketing Science*, 5, 392-770.
- 5 Ehrenberg, A. S. C. and Bound, J. A. (1993) Predictability and Prediction *Journal of the*  
6 *Royal Statistical Society. Series A (Statistics in Society)* Vol. 156, No. 2 (1993), pp.  
7 167-206
- 8 Ehrenberg, A. S., Goodhardt, G. J., & Barwise, T. P. (1990). Double Jeopardy Revisited  
9 *Journal of Marketing*, 54(3), 82-91.
- 10 Ehrenberg, A. S., Uncles, M. D., & Goodhardt, G. J. (2004). Understanding brand  
11 performance measures: using Dirichlet benchmarks. *Journal of Business*  
12 *Research*, 57(12), 1307-1325.
- 13 Emery T, and Thrift J. (2021) 20-minute Neighbourhoods – creating healthier, active,  
14 prosperous communities. An introduction for council planners in England: Town and  
15 country planning association; 2021. Available at [https://tcpa.org.uk/wp-](https://tcpa.org.uk/wp-content/uploads/2021/11/final_20mnguide-compressed.pdf)  
16 [content/uploads/2021/11/final\\_20mnguide-compressed.pdf](https://tcpa.org.uk/wp-content/uploads/2021/11/final_20mnguide-compressed.pdf)
- 17 Enoch, M., Monsuur, F., Palaiologou, G., Quddus, M. A., Ellis-Chadwick, F., Morton, C., &  
18 Rayner, R. (2022). When COVID-19 came to town: Measuring the impact of the  
19 coronavirus pandemic on footfall on six high streets in England. *Environment and*  
20 *Planning B: Urban Analytics and City Science*, 49(3), 1091-1111.
- 21 Evans, G. (2015). Rethinking place branding and place making through creative and cultural  
22 quarters. In *Rethinking place branding* (pp. 135-158). Springer, Cham.
- 23 Feetham, S, Page, B., Souvertjis-Sharp, A., and Graham, C. (2022) Is Footfall All? Australia  
24 & New Zealand Marketing Conference, 2022, University of Western Australia, Perth.
- 25 Feldwick, P. (1996). What is brand equity anyway, and how do you measure it?. *Market*  
26 *Research Society. Journal.*, 38(2), 1-17.
- 27 Florek, M., & Kavartzis, M. (2014). From brand equity to place brand equity and from there  
28 to the place brand. *Place Branding and Public Diplomacy*, 10(2), 103-107.
- 29 Gower, A., & Grodach, C. (2022). Planning Innovation or City Branding? Exploring How  
30 Cities Operationalise the 20-Minute Neighbourhood Concept. *Urban Policy and*  
31 *Research*, 40(1), 36-52.
- 32 Graham, C., & Kennedy, R. (2022). Quantifying the target market for advertisers. *Journal of*  
33 *Consumer Behaviour*, 21(1), 33-48.
- 34 Graham, C., Khan, K., & Ilyas, M. (2019). Estimating the value of passing trade from  
35 pedestrian density. *Journal of Retailing and Consumer Services*, 46, 103-111.
- 36 Graham, C., & Peleg, A. (2017). Will a smart city have a high street? In *Sustainable Smart*  
37 *Cities* (pp. 143-157). Springer, Cham.
- 38 Greater London Authority (2022) *High Streets for All*, available at:  
39 [https://www.london.gov.uk/coronavirus/londons-recovery-coronavirus-](https://www.london.gov.uk/coronavirus/londons-recovery-coronavirus-crisis/recovery-context/high-streets-all#acc-i-63816)  
40 [crisis/recovery-context/high-streets-all#acc-i-63816](https://www.london.gov.uk/coronavirus/londons-recovery-coronavirus-crisis/recovery-context/high-streets-all#acc-i-63816) Accessed October 15<sup>th</sup> 2022.
- 41 Guy, C. (1999). *Retail location analysis*. In *Applied Geography: principles and practice*, ed  
42 Pacione, M. London: Routledge. 450-462.
- 43 Hammond, K., Ehrenberg, A., and Goodhardt, G. (1996) Market segmentation for  
44 competitive brands. *European Journal of Marketing* 30, 12 (1996): 39-49.
- 45 Hanssens, D. M., & Pauwels, K. H. (2016). Demonstrating the value of marketing. *Journal of*  
46 *marketing*, 80(6), 173-190.
- 47 Jacobsen, B. P. (2012). Place brand equity: A model for establishing the effectiveness of  
48 place brands. *Journal of Place Management and Development*.
- 49 Jones, K., Simmons, J., 1990. *The Retail Environment*. Routledge, London.
- 50 Jørgensen, O. H. (2015). Developing a city brand balance sheet—Using the case of Horsens,  
51 Denmark. *Place Branding and Public Diplomacy*, 11(2), 148-160
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3 Kavaratzis, M., & Ashworth, G. J. (2005). City branding: an effective assertion of identity or  
4 a transitory marketing trick? *Tijdschrift voor economische en sociale geografie*, 96(5),  
5 506-514.
- 6 Khan, B., Kalwani, M., & Morrison D. (1988). Niching Versus Change-of-Pace Brands:  
7 Using Purchase Frequencies and Penetration Rates to Infer Brand  
8 Positioning. *Journal of Marketing Research*, 25, 384-90.
- 9 Kennedy, R., & Ehrenberg, A. S. (2001). Competing retailers generally have the same sorts  
10 of shoppers. *Journal of Marketing Communications*, 7(1), 19-26.
- 11 Kennedy, R., & McColl, B. (2012). Brand growth at Mars, Inc.: how the global marketer  
12 embraced Ehrenberg's science with creativity. *Journal of Advertising Research*, 52(2),  
13 270-276.
- 14 Kotler, P., Haider, D., and Rein, I. (1993) *Marketing Places*. The Free Press, New York.
- 15 Kumar, N., & Panda, R. K. (2019). Place branding and place marketing: a contemporary  
16 analysis of the literature and usage of terminology. *International Review on Public  
17 and Nonprofit Marketing*, 16(2), 255-292.
- 18 Lam, S. Y., Vandenbosch, M., Hlland, J., & Pearce, M. (2001). Evaluating promotions in  
19 shopping environments: Decomposing sales response into attraction, conversion, and  
20 spending effects. *Marketing Science*, 20(2), 194-215.
- 21 Lewisham Council (2021) *Lewisham High Streets Survey*. Available at:  
22 <https://lewisham.gov.uk/myservices/business/highstreet-study> Accessed Oct 15, 2022.
- 23 Lucarelli, A., & Berg, P. O. (2011). City branding: a state-of-the-art review of the research  
24 domain. *Journal of place management and development*. 4(1), 19-27
- 25 McPhee, W. N. (1963) *Formal theories of mass behaviour*. New York: The Free Press of  
26 Glencoe.
- 27 Millington, S., & Ntounis, N. (2017). Repositioning the high street: evidence and reflection  
28 from the UK. *Journal of Place Management and Development*, 10(4), 364-379.
- 29 Minton, A., (2012) *Ground Control. Fear and happiness in the twenty first century city*.  
30 Penguin Books
- 31 Moreno, C., Allam, Z., Chabaud, D., Gall, C., & Pratlong, F. (2021). Introducing the “15-  
32 Minute City”: Sustainability, resilience and place identity in future post-pandemic  
33 cities. *Smart Cities*, 4(1), 93-111.
- 34 Morrison, D. G., & Schmittlein, D. C. (1988). Generalizing the NBD model for customer  
35 purchases: What are the implications and is it worth the effort? *Journal of Business &  
36 Economic Statistics*, 6(2), 145-159.
- 37 Mumford, C., Parker, C., Ntounis, N., and Dargan, E. (2021) Footfall signatures and  
38 volumes: Towards a classification of UK centres *EPB: Urban Analytics and City  
39 Science* 2021, Vol. 48(6) 1495–1510
- 40 Nathan, M., Vandore, E., & Voss, G. (2019). Spatial imaginaries and tech cities: place-  
41 branding East London's digital economy. *Journal of Economic Geography*, 19(2),  
42 409-432.
- 43 Nenycz-Thiel, M., Beal, V., Ludwichowska, G., & Romaniuk, J. (2013). Investigating the  
44 accuracy of self-reports of brand usage behavior. *Journal of Business Research*, 66(2),  
45 224-232.
- 46 Ntounis, N., & Kavaratzis, M. (2017). Re-branding the High Street: the place branding  
47 process and reflections from three UK towns. *Journal of Place Management and  
48 Development*.10(4), 392-403.
- 49 Ntounis N, Saga RS, Loroñ-Leturiondo M., Hindmarch, T. and Parker, C. (2020) The time  
50 to act is now: a framework for post-COVID 19 recovery for our towns and cities.  
51 Institute of Place Management (IPM) Blog. Available at: <http://blog>.
- 52  
53  
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- placemanagement.org/2020/04/02/the-time-to-act-is-now-a-framework-for-post-covid-19-recovery-for-our-towns-and-cities/ (accessed 14<sup>th</sup> October 2022).
- Perdikaki, O., Kesavan, S., & Swaminathan, J. M. (2012). Effect of traffic on sales and conversion rates of retail stores. *Manufacturing & Service Operations Management*, 14(1), 145-162.
- Philp, S., Dolega, L., Singleton, A., & Green, M. (2022). Archetypes of Footfall Context: Quantifying Temporal Variations in Retail Footfall in relation to Micro-Location Characteristics. *Applied Spatial Analysis and Policy*, 15(1), 161-187.
- Quinio, V (2022) Have suburban high streets really received a work from home boost? Centre for Cities blog post 3rd March 2022. Available at: <https://www.centreforcities.org/blog/have-suburban-high-streets-really-received-a-work-from-home-boost/>
- Rauhut D., & Rauhut Kompaniets, O. (2020) How to measure the impact of place marketing activities: a methodological discussion, *Geografisk Tidsskrift-Danish Journal of Geography*, 120:1, 67-78
- Romaniuk, J., Dawes, J., & Nenycz-Thiel, M. (2018). Modeling brand market share change in emerging markets. *International Marketing Review*, 35(5), 785-805.
- Sevin, E. (2021). Computational approaches to place branding: A call for a theory-driven research agenda. In *A Research Agenda for Place Branding* (pp. 33-45). Edward Elgar Publishing.
- Sharp, B. (2010) *How brands grow. What marketers don't know*. OUP, Melbourne.
- Sharp, B., Wright, M., & Goodhardt, G. (2002). Purchase loyalty is polarised into either repertoire or subscription patterns. *Australasian Marketing Journal*, 10(3), 7-20.
- Sparks, L. (2021) Towns, High Streets and Resilience in Scotland: A Question for Policy? *Sustainability* 2021,13, 5631.
- Trinh, G. T., Anesbury, Z. W., & Driesener, C. (2017). Has behavioural loyalty to online supermarkets declined? *Australasian Marketing Journal*, 25(4), 326-333.
- Uncles, M., Kennedy, R., Nenycz-Thiel, M., Singh, J., & Kwok, S. (2012). User profiles for directly competing brands seldom differ: re-examining the evidence. *Journal of Advertising Research*, 52(2), 252-261.
- Uncles, M. D., & Kwok, S. (2009). Patterns of store patronage in urban China. *Journal of Business Research*, 62(1), 68-81.
- VanHoose, K., Hoekstra, M., & Bontje, M. (2021). Marketing the unmarketable: Place branding in a postindustrial medium-sized town. *Cities*, 114, 103216.
- Vladimirov, A., & Warnaby, G. (2021). Place branding and locational decisions: Taking a behavioural economics perspective? In *A Research Agenda for Place Branding* (pp. 87-99). Edward Elgar Publishing.
- Warnaby, G. (2018) Taking a territorological perspective on place branding? *Cities*, 80, 64-66.
- Wright, M., Sharp, A., & Sharp, B. (2002). Market statistics for the Dirichlet model: Using the Juster scale to replace panel data. *International Journal of Research in Marketing*, 19(1), 81-90.
- Zenker, S., & Martin, N. (2011). Measuring success in place marketing and branding. *Place Branding and Public Diplomacy*, 7(1), 32-41.

Figure I. Double Jeopardy benchmarking for high street footfall



	Share of Footfall %	Observed <i>b</i> %	<i>w</i>	Predicted $w_o/(1 - b)$
Lewisham			1.54	
<b>Deptford</b>	24	6	1.3	1.2
Lewisham	23	6	1.2	1.2
Catford	11	3	1.2	1.1
Forest Hill	10	3	1.1	1.1
<b>Blackheath</b>	9	2	1.0	1.1
Sydenham	8	2	1.1	1.1
New Cross	7	2	1.1	1.1
Crofton Park	5	1	1.0	1.1
<b>Honor Oak</b>	4	1	1.2	1.1
<b>Averages</b>	<b>11</b>	<b>3</b>	<b>1.2</b>	<b>1.2</b>

**Table I. Descriptive attributes of the high street sample**

High Street	Single family occupancy	Footfall (avg hour)	Business Premises	Independent Businesses	Total Voids
	%			%	%
Deptford	45	1900	179	80	11
Lewisham	46	1800	217	71	5
Catford	49	872	140	64	9
Forest Hill	54	800	114	77	7
Blackheath	51	700	116	60	3
Sydenham	52	650	165	79	4
New Cross	45	521	140	82	11
Crofton Park	51	400	112	81	8
Honor Oak	54	350	35	91	0
<b>Average</b>	<b>50</b>			<b>76</b>	<b>6</b>

<https://www.observatory.lewisham.gov.uk/population/map/>

For comparison: Single Family Households England 61.8% Lewisham 51.3% London 53.5%



**Table II. Split loyalties in high street usage**

	Repeat on this high street	Repeat elsewhere within Lewisham	Total
	%	%	%
Deptford	31	29	60
Lewisham	21	18	39
Catford	17	46	63
Forest Hill	10	31	41
Blackheath	0	33	33
Sydenham	8	46	54
New Cross	8	44	52
Crofton Park	4	49	53
Honor Oak	15	41	56
<b>Average</b>	<b>13</b>	<b>37</b>	<b>50</b>

**Table III. Self-reported and estimated weekly visitor frequencies**

High Street Survey Frequency Scale	Self-Reported Frequencies	Extrapolated Weekly Estimate
	%	%
Every day	40	<b>14</b>
4/5 times/week		
2/3 times a week	34	<b>36</b>
At least once a month	14	
Very Occasionally	12	<b>50</b>

**Table IV. Visit frequency, distance and intended spend**

	<b>All High Streets</b>	Live Locally	Work Locally	Neither
	%	%	%	%
Every day	<b>40</b>	86	39	3
2/3 times a week	<b>34</b>	80	28	14
At least once a month	<b>14</b>	55	18	36
Very Occasionally	<b>12</b>	33	18	54
Those intending to spend over £30.00	<b>24</b>	23	16	29
Correl freq & dist $r =$		<i>0.94</i>	<i>0.95</i>	<i>-0.96</i>

*Duplicated live/work: Daily 28%; 2 or 3 times 22%; Once a month 9%; Neither 5%*

**Table V: Retail mix by high street**

High Street	Number of Business	Service	Leisure	Comp.	Conv	Misc.	High St MAD
		%	%	%	%	%	
<b>High St. Mean</b>		<b>34</b>	<b>28</b>	<b>22</b>	<b>14</b>	<b>3</b>	
Lewisham	217	35	23	27	13	3	<b>2.6</b>
Deptford	179	21	25	30	23	1	<b>7.2</b>
Sydenham	165	38	20	24	14	4	<b>3.2</b>
New Cross Road	140	32	40	15	10	3	<b>4.8</b>
Catford	140	26	34	16	21	3	<b>5.2</b>
Blackheath	116	30	24	35	9	2	<b>5.6</b>
Forest Hill	114	43	29	19	6	3	<b>4.0</b>
Crofton Park	112	39	34	16	11	1	<b>4.2</b>
Honor Oak Park	35	29	31	17	17	6	<b>3.6</b>
<b>MAD</b>		<b>5.7</b>	<b>5.3</b>	<b>6.0</b>	<b>4.4</b>	<b>1.0</b>	<b>4.5</b>

**Table VI. High street user profiles**

High Street	Avg F/Fall /Hour	<u>Socio Economic</u>			<u>Attitudinal</u>		<u>Behavioural</u>		Average High Street MAD
		Local	Family Empl/mt	Financial Optimism	What attracts:	A good place to:	Visit Freq/y	Intended Spend	
Deptford	1900	4.8	9.5	5.0	9.2	4.7	6.3	1.3	<b>5.8</b>
Lewisham	1800	5.0	1.5	2.7	4.8	7.3	2.7	6.7	<b>4.4</b>
Catford	872	2.8	7.5	5.0	7.2	4.7	0.0	2.0	<b>4.2</b>
Forest Hill	800	4.3	0.0	3.3	6.6	7.3	3.3	2.7	<b>3.9</b>
Blackheath	700	9.0	2.5	3.7	8.6	8.0	10.0	6.7	<b>6.9</b>
Sydenham	650	1.3	3.0	1.3	9.2	2.0	3.0	1.3	<b>3.0</b>
New Cross	521	5.3	3.5	12.3	9.4	2.3	2.7	4.0	<b>5.6</b>
Crofton Park	400	5.5	3.0	4.3	5.6	14.3	3.3	5.7	<b>6.0</b>
Honor Oak	350	2.8	13.5	5.3	7.4	7.3	3.3	2.0	<b>6.0</b>
<b>MAD</b>		<b>4.5</b>	<b>4.9</b>	<b>4.8</b>	<b>7.6</b>	<b>6.4</b>	<b>3.9</b>	<b>3.6</b>	<b>5.1</b>

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