Principles in locating manufacturing sites

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The general principle in locating manufacturing sites is cost minimization. For locating retail services, what is/are the major principle(s) and theories? Particularly, you need to explain the perplexing phenomenon that stores providing similar services (selling similar products) are located very close to each other (even adjacent), forming spatial clusters (e. g., jewelry stores, hotels). What are the spatial-temporal dynamics involved in producing such patterns?

Introduction

Locating retail services is different from locating manufacturing sites because retailers mainly serve local residents but rarely engage in export trades. Instead of choosing sites with low transport cost, retailers consider distance as a determinant for proximity to market, which represents incentive for consumers to visit. Locational strategies for retail stores are primarily based on profit maximization through increasing market share and business volume. This essay researches three major theories for locating retail services, and investigates the rationale behind spatial clustering of retail stores.

Major principles and theories for locating retail services

C *entral place theory* describes functional hierarchy of centres based on order of services retailers offer. Considering the distance consumers are willing to travel and basic demand to sustain businesses, Christaller (as cited in Bell et al., 1974) categorized high-order services which have large ‘ range’ and high ‘ threshold’, in opposition to low-order services. In a regional scale, retail centres with low-order stores such as fast food shops and convenience

stores are located closer to each other because consumers of these services have low incentive to travel a long distance. While high-order centres are far apart to secure a larger market for their high ‘ threshold’.

Within each centre, *bid rent theory* describes spatial pattern of retail services using the rule of land occupation by the highest bidder. Keen competition for central locations implies occupation by retailers who could afford high land rent, whilst housing and industries are located at outer zones. Low-order retailers occupy central sites inside neighbourhood retail centres, but are pushed towards the periphery in regional centres when higher-order retailers outbid them (Brown, 1992). Co-location of high-order stores such as department stores, women’s apparel and jewelers in core areas gives rise to retail clustering.

Spatial clusters of retail stores selling similar services in a micro scale

From microeconomic perspective, Hotelling’s (1929) *principle of minimum differentiation* argues that two homogeneous retailers initially located at opposite ends of market would leapfrog each other to capture the bulk market, which eventually leads to locations adjacent to each other in market centre at equilibrium. Despite support from empirical research, Hotelling’s position is being criticized for incompatibility with the notion that retail stores should be spatially dispersed to maximize market share, and failure to justify spatial clustering for high-order services (Brown, 1992). Addressing risk reducing behaviour of consumers, Wolinsky (1983) modified the principle by explaining the need for consumers to search the market as a result of imperfect market information. Retail clusters are more attractive to

consumers than isolated store because asymmetric information on quality and availability of goods encourages comparison shopping. Retailers offering similar services locate in close proximity to benefit from agglomeration economies, which creates additional demand and reduces operating cost to outweigh potential loss from more intense competition. Relaxing assumptions in classical models to allow multi-purpose shopping behaviour, Öner & Larsson (2014) also explains the clustering of stores selling complementary services.

Spatial-temporal dynamics involved in spatial clusters

As economy grows and city expands over time, spatial pattern of retail services change. The classical retail succession model which divides city areas into central, middle and outer zones predicts that retail cluster at central zone would gradually transform from low to high order retail stores under development pressure and rising land rent (Brown, 1992). At the newly expanded suburb, residential patterns changes as household size declines, bringing more low-order services and convenience stores cluster to satisfy single families' needs (Jones & Simmons, 1990). Although classical models explain well for small retailers in post-war period, rapid growth of large retailers creates new dynamics in retail locations. Central and neighbourhood business districts with no pre-set format are gradually transformed into planned shopping centres which entail higher rent (Burnaz & Topçu, 2006). The clustering pattern is no longer explained solely by agglomeration economies but also central management of store location in malls, and domination of large chained-brands which could afford skyrocketing commercial rent (Lovreta et al., 2013).

Conclusion

Retail locations in a macro level are primarily determined by central place theory and bid rent theory. The former describes spatial dispersion of retail service centres, while the latter portrays intra-urban spatial pattern for various retail types. In micro level, the principle of minimum differentiation incorporating consumers' risk reducing behaviour is essential in explaining agglomeration economies as a motivation for spatial clusters of retailers selling similar or complementary services. Although classical approach is still supported by empirical research, it is indispensable to address spatial-temporal dynamics since retail structure evolves tremendously during economic and demographic transitions. Retail clustering becomes a composite effect of agglomeration economies alongside mall's management decisions and large retailers' domination.

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