



The Role of Local Independent Retailing on Urban Retail Restructuring: A Study on the Province of Ankara

Kent Perakendeciliğinin Yeniden Şekillenmesinde Yerel Bağımsız Perakendeciliğin Rolü: Ankara İli Üzerine Bir İnceleme

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Öz

Ticaretin kentlerin oluşumu ve gelişimindeki kritik rolü, kentleşmeyle perakende yapıları arasındaki ilişkinin kapsamlı bir şekilde incelenmesini zorunlu kılmaktadır. Kentsel dönüşüm dinamikleri, e-ticaretin yaygınlaşması ve zincir perakende işletmelerinin piyasa üzerindeki artan hâkimiyeti, geleneksel ticaret yapılarının sürdürülebilirliği açısından önemli tehditler oluşturmaktadır. Bununla birlikte, yerel bağımsız perakendeciler; müşterileriyle geliştirdikleri güvene dayalı ilişkiler, yerel bağlamların gereksinimlerine hızlı uyum sağlayabilme yetenekleri ve mekânsal özgünlüklerini koruyabilmeleri sayesinde sosyo-ekonomik varlıklarını sürdürme konusunda önemli bir direnç sergilemektedir. Bu çalışma, Ankara ili örneğinde yerel bağımsız perakendeciliğin, kentsel perakendecilikteki yeniden yapılandırma rolünü incelemekte; özellikle merkez ve çevre ilçelerdeki tüketici memnuniyeti, alışveriş sıklığı ve perakende yoğunluğuna odaklanmaktadır. Nicel verilere ve vaka çalışması yaklaşımına dayalı betimsel bir nitelik taşıyan bu çalışmada hibrit bir metodoloji kullanılmıştır. Ankara'da ikamet eden 509 katılımcıdan elde edilen birincil veriler, SPSS 25 yazılımı aracılığıyla Ki-kare, Spearman korelasyonu ve sıralı lojistik regresyon testleri kullanılarak analiz edilmiştir. İkincil veriler ise literatürden uyarlanan bir formül vasıtasıyla kentsel perakende yoğunluğunu hesaplamak için kullanılmıştır. Ampirik bulgular, yerel bağımsız perakendecilerin pazardaki konumlarını koruduklarını ve tüketicilerin sunulan hizmetlerden yüksek düzeyde memnun olduklarını göstermektedir. Spearman korelasyon analizi, alışveriş sıklığı ile memnuniyet değişkenleri arasında pozitif, orta düzeyde ve anlamlı bir ilişki olduğunu ortaya koymuştur ($r_s = 0.12$, $p < 0.01$). Bu durum, yüksek memnuniyetin genellikle haftalık olarak gerçekleşen alışveriş sıklığını artırdığını kanıtlamaktadır. Ayrıca, sıralı lojistik regresyon analizi, yerel bağımsız perakendeci sayısının perakende yoğunluğu üzerinde istatistiksel olarak anlamlı bir etkiye sahip olduğunu göstermiştir (Wald = 62.797, $p < 0.001$). Negatif lojistik katsayısı ($\beta = -1.853$), bağımsız perakendecilerin yüksek konsantrasyona sahip olduğu bölgeler ile yüksek perakende yoğunluk skorları arasında pozitif bir eğilim olduğunu; zincir marketlerin ağırlıkta olduğu bölgelerin ise daha düşük yoğunluk kategorilerinde kümelenildiğini doğrulamaktadır. Son olarak, Ki-Kare analizi perakende yoğunluğu ile memnuniyet arasında anlamlı bir bağ olduğunu doğrulasa da ($\chi^2(28) = 51.552$, $p < 0.01$), düşük korelasyon katsayısı (Gamma = -0.065, $p > 0.05$) yerel esnaftan duyulan memnuniyetin doğrudan perakende yoğunluğuna bağımlı olmadığını göstermektedir. Buna karşın genel memnuniyet oranının yüksek olduğu, ancak bu olumlu memnuniyet oranının perakende yoğunluğunun fazla olduğu kentsel alanlarda daha da ivme kazandığı (arttığı) görülmüştür. Sonuç olarak çalışma, perakende yoğunluğunun tüketici tercihleri ve kent perakendeciliği üzerinde belirleyici bir faktör olduğuna işaret etmektedir.

Anahtar Kelimeler: Ankara, perakendecilik, perakende yoğunluğu, tüketici memnuniyeti, yerel bağımsız perakendecilik

ABSTRACT

The critical role of trade in urban development necessitates a comprehensive analysis of the relationship between urbanization and retail structures. The dynamics of urban transformation, the rapid expansion of e-commerce, and the growing market dominance of chain retailers have emerged as major threats to the sustainability of traditional retail structures. Despite these challenges, independent local retailers exhibit remarkable resilience in sustaining their socio-economic role through the cultivation of trust-based customer relationships, their capacity to respond flexibly to the specific needs of the local context, and the preservation of their unique spatial identity. This study

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examines the role of local independent retailing in urban retail restructuring within Ankara, specifically focusing on consumer satisfaction, shopping frequency, and retail density across central and peripheral districts. Adopting a descriptive, quantitative case-study approach, the research utilizes a hybrid methodology. Primary data collected from 509 residents of Ankara were analyzed using SPSS 25 through Chi-square tests, Spearman correlation, and ordinal logistic regression. Secondary data were employed to calculate urban retail density using an adapted formula from the literature. The empirical findings reveal that local independent retailers maintain a strong market position, with consumers reporting high overall satisfaction. Spearman correlation analysis indicates a positive, moderate, and significant relationship between shopping frequency and satisfaction ($r_s = 0.12$, $p < 0.01$), proving that higher satisfaction increases shopping frequency, which typically occurs weekly. Furthermore, ordinal logistic regression shows that the number of local independent retailers significantly impacts retail density (Wald = 62.797, $p < 0.001$). The negative logistic coefficient ($\beta = -1.853$) confirms a positive trend between high concentrations of independent retailers and superior retail density scores, whereas regions dominated by chain stores cluster in lower density categories. Finally, while Chi-square analysis confirms a significant connection between retailer density and satisfaction ($\chi^2(28) = 51.552$, $p < 0.01$), the low correlation (Gamma = -0.065 , $p > 0.05$) indicates that satisfaction is not strictly dependent on density. Instead, overall satisfaction remains high but is further amplified in high-density urban areas, highlighting retail density as a determining factor in consumer preferences.

Keywords: Ankara, retailing, retail density, consumer satisfaction, local independent retailing

INTRODUCTION

Retail trade serves as a critical intermediary link between production and consumption. Historically, in Western societies, consumption was geographically concentrated in major urban centers along strategic trade routes, thriving on the commerce of high-value commodities such as tobacco, sugar, gold, and silver (Muldrew, 2003). The subsequent waves of urbanization facilitated the development of large-scale retail establishments (Ingene, 2014), elevating urban retailing to a dominant economic position by the turn of the twentieth century (Maddison, 1976). However, since the 1980s, the emergence of e-commerce has enabled producers to bypass traditional intermediaries, progressively altering distribution channels and intensifying market competition up to the present day (McArthur et al., 2016).

As a complementary component of the urban economy, the retail sector deeply influences urban infrastructure. A diverse commercial structure not only reflects a city's economic status and welfare level (Jarrah et al., 2019) but also serves as a key indicator of its standard of living by ensuring consumer accessibility to shopping opportunities. Urban configurations—including the layout of streets, roads, and public spaces—dictate residential movement, commercial center accessibility, and the structure of social networks. Highly connected, central spaces with superior accessibility naturally attract intense retail activity and entrepreneurship. Conversely, disconnected urban areas characterized by lower population densities and poor accessibility suffer from underinvestment and heightened economic inequalities (Samburu et al., 2023). Consequently, these spatial dynamics create imbalances in retail density and capacity, directly shaping local economic development.

Furthermore, retail concentration in urban environments reflects demand stability, population density, purchasing power, consumption patterns, and spatial accessibility (Maraschin & Krafta, 2013). This concentration acts as a catalyst for growth, stimulating increased housing density, rising real estate values, upgraded public infrastructure, and enhanced transportation networks in surrounding neighborhoods (Samburu et al., 2023). Because retailing is inherently market-driven, the survival of commercial enterprises depends heavily on their capacity to adapt to changing urban trends. Therefore, understanding micro-level shifts in local retail environments is vital for businesses striving to maintain competitiveness and long-term sustainability (Longley et al., 2003; Samburu et al., 2023).

To thrive, businesses must innovate to protect and enhance customer satisfaction—a requirement that is particularly urgent for local independent retailers. Independent retailing stimulates local development, drives job creation, fosters economic diversification, and circulates wealth within the community. However, the performance of these traditional businesses remains highly sensitive to

local socio-demographic conditions and neighborhood quality of life (Cisse & Dube, 2024), suggesting a strong correlation between retail density (store counts) and population dynamics.

While existing literature frequently addresses macro-level retail transformations, empirical research combining spatial secondary data (retail density formulas) with primary consumer insights remains scarce. This study bridges this gap by providing a nuanced, district-level analysis of a major metropolitan area (Ankara), offering both theoretical and practical insights for urban planners and local retail strategists.

Despite the recognized importance of traditional commerce, urban retail restructuring driven by rapid modernization poses a significant threat to independent retailers. This study aims to examine the role of local independent retailing in urban retail restructuring within the province of Ankara, Turkey. Within this framework, the following hypotheses are proposed:

H₁: There is a significant positive correlation between market density and local independent retail.

H₂: There is a significant positive correlation between shopping frequency and satisfaction.

H₃: There is a significant positive correlation between the number of local independent retailers and shopping frequency.

Specifically, the study investigates the complex interplay between consumer satisfaction, shopping frequency, and retail density across both central and peripheral districts. By doing so, the study addresses a critical question: Does urban retail density exert a significant influence on consumer satisfaction and shopping frequency within traditional retail structures?

The remainder of this paper is structured as follows. The subsequent section reviews the relevant literature on urban retail dynamics. The second section outlines the research methodology, detailing participant selection, data collection instruments, and statistical procedures. The third section presents the empirical findings, including demographic profiles, descriptive statistics, and advanced analyses of retail concentration. The fourth section discusses these findings in relation to the existing literature, and the paper concludes with a comprehensive evaluation and policy recommendations.

Literature Review

The relationship between urban structures and retailing is dynamically shaped by the intensity and diversity of consumption, market regulations, and geographical positioning. High population density and proximity to consumer markets in metropolitan areas serve as critical determinants of retail strategies, driving the diversification of retail formats (Ingene, 2014). Concurrently, urban decentralization has enabled flexible retail models, particularly large corporate supermarket chains, to strategically expand outward from traditional city centers (Maddison, 1976). Ideally, the geographical distribution of retail establishments should mirror the spatial distribution of the urban population. To ensure that residents can access daily necessities within walking distance, local authorities must balance the competing principles of retail dispersion and clustering through urban planning interventions, such as relocating open-air markets and regulating inter-store distances (Baics, 2015).

From both business management and public administration perspectives, the spatial distribution of food markets exhibits distinct behavioral patterns driven by accessibility and competition (Baics, 2015). For instance, a relatively high concentration of food retailers is typically observed in areas characterized by low consumption density. Furthermore, these retailers tend to disperse geographically to maximize proximity to customers, with store locations primarily dictated by transportation accessibility and pedestrian walking distances. To minimize direct competition,

retailers offering substitute products often establish mutually exclusive market areas, leading to a relatively even distribution across the urban landscape influenced by localized socio-economic and demographic characteristics. Conversely, retailers selling complementary rather than substitute products tend to cluster together to leverage economies of scale and generate cumulative customer traffic. Ultimately, these dynamics lead to the institutionalization of highly centralized urban food networks, where public markets cater to neighborhood residents and wholesale markets serve commercial vendors.

Fundamentally, as the final stage in the supply chain transferring goods from producers to end-users (Pitfield, 1982), retailing represents a vital economic activity that significantly contributes to Gross Domestic Product (GDP), employment generation, and operational diversity (Gilbert, 2003; OECD, 2004). This economic significance, combined with evolving producer-consumer dynamics and the rise of shopping as a contemporary leisure activity, has profoundly reshaped how indoor and outdoor commercial spaces are utilized (Alexander & Kent, 2016; Vaja, 2015). Today, driven heavily by rapid technological advancements, the global retail sector is undergoing a profound structural transformation (Fildes et al., 2022; Shankar et al., 2021).

This transformation is particularly pronounced among local independent retailers, who constitute a substantial portion of the retail ecosystem. In emerging market contexts such as Türkiye, the independent retail sector is predominantly characterized by small-scale, owner-managed enterprises with low capital requirements and minimal entry barriers (Oyman, 2006). Independent retailing performs vital socio-economic functions, including localized job creation, economic diversification, the fostering of interpersonal social networks, and the preservation of market competition (Smith & Sparks, 2011). Despite the profound socio-economic value attributed to these traditional businesses by their communities (Clarke & Banga, 2010), they face escalating challenges in surviving an environment increasingly dominated by corporate chain stores, wholesalers, and modern shopping malls.

Consequently, fostering frequent shopping at local independent outlets and maximizing customer satisfaction have emerged as pivotal themes in contemporary retail literature. Extant research demonstrates that the alignment between retailer performance and consumer expectations is a primary driver of customer satisfaction (Lee et al., 2008). In food retailing specifically, attributes such as competitive pricing, product variety, product quality, and frontline employee service remain critical determinants of satisfaction across both corporate and independent formats (Huddleston et al., 2009). However, consumer preferences are shifting away from purely low-price strategies (Ho et al., 2011). While corporate chains leverage economies of scale and optimized logistics to maintain price advantages, consumer satisfaction benchmarks fluctuate with broader economic cycles; affordable pricing dominates during economic downturns, whereas service quality gains prominence during periods of prosperity. Furthermore, non-price factors such as social desirability and employee friendliness heavily incentivize consumers to prefer small independent retailers (Paul et al., 2016), though these quality perceptions and loyalty mechanisms can vary significantly across different national and cultural contexts (Juhl et al., 2002).

Despite the extensive body of research on consumer satisfaction, an empirical gap persists regarding the systemic interactions among shopping frequency, satisfaction, locality, retail density, and institutional capacity within highly concentrated urban areas. One dominant perspective in the literature argues that the expansion of large supermarket chains accelerates the decline of the independent retail sector due to the superior product diversity and satisfaction scales offered by corporate retailers (Coca-Stefaniak et al., 2005). This is supported by Çakır et al. (2021), who concluded that the aggressive entry of large chain stores during periods of high retail concentration drastically reduces the survival rate of local independent retailers.

Conversely, recent empirical evidence challenges this narrative of inevitable decline. For instance, Cisse and Dube (2024) demonstrated that the opening of new retail outlets can generate positive spillovers for local independent retailing. Similarly, Samburu et al. (2023) observed that while corporate retail density clusters in highly developed areas, independent retailers generate substantial localized synergies in unplanned settlements and traditional service areas, thereby maintaining market resilience. This adaptability is further evidenced by Hall (2011), who illustrated how independent small businesses and ethnic entrepreneurship successfully survive global competitive pressures by continuously reproducing and reinforcing localized retail concentration. While some scholars argue that state interventions can shield these traditional markets, others, such as Sadun (2015), suggest that government protections often yield limited results as corporate retailers strategically co-opt local characteristics into their own expansion models. It is within this contested theoretical landscape regarding retail density, spatial concentration, and consumer behavior that the present study evaluates the structural dynamics of local independent retailing in Ankara.

1. Method

This research is a descriptive study based on quantitative data and a case study approach. The study examines the existing retail capacities in the central and peripheral districts of Ankara, as well as the factors associated with these capacities. To achieve this objective, a hybrid methodology incorporating both primary and secondary data sources was employed. Primary data were analyzed using SPSS 25 statistical software. The statistical analyses included Chi-square tests, Spearman correlation analysis, and ordinal logistic regression. In addition, retail density levels were calculated using a formula adapted from the relevant literature based on secondary data.

1.1. Participants

Ankara was selected as the research universe due to its structural alignment with contemporary urban planning dynamics -characterized by its status as Turkey's second- largest megacity, its rapid urbanization rate, and the strategic administrative importance inherent to the national capital. The target population of the study is explicitly defined as consumers residing within the eight primary central districts of Ankara: Altındağ, Çankaya, Etimesgut, Gölbaşı, Keçiören, Mamak, Pirsaklar, and Sincan. These central districts encompass a total of 436 neighborhoods with a combined population of 4,464,145 individuals. To ensure structural representation across this large population, a probability-based multi-stage sampling design incorporating stratified and systematic sampling methods was employed. The required sample size was initially calculated based on a standard population-bound formula for large universes:

$$n = \frac{Z^2 \cdot p \cdot q}{e^2}$$

Where N represents the total population size (4,464,145), Z is the standard normal deviation reflecting a 95% confidence level (1.96), and e is the acceptable margin of error (0.05). Assuming maximum variability (p = 0.5, q = 0.5), the theoretical minimum sample size was determined to be 385. To safeguard statistical power against potential non-response rates or data anomalies during fieldwork, the target sample size was intentionally increased to approximately 450 participants. Rather than relying on arbitrary or convenience-based distributions, the final sample was strictly stratified across the eight targeted districts to maintain exact mathematical proportionality to their respective population shares. Within each district, every constituent neighborhood was assigned a sequential identification number, and participants were systematically selected from these lists.

1.2. Materials and Data Collection

Primary data regarding consumer satisfaction and shopping frequencies were collected in 2025 through a standardized telephone survey method administered by a professional research agency. The primary data analyzed in this study were originally collected as part of a research project titled “Kent Merkezlerinde Yerel Bağımsız Perakendeciliğin Değişimi ve Kent Makroformuna Etkileri: Ankara Örneği” and previously utilized by Kara et al. (2026) to investigate local independent retailing.

During the fieldwork, strict geographic quotas were enforced based on the predetermined stratified sample sizes for the eight central districts. While a negligible number of survey responses were initially recorded from residential areas falling outside the predefined spatial boundaries (e.g., Ayaş, Beypazarı, and Yenimahalle), these cases were thoroughly scrutinized during the data-cleaning phase. To preserve the methodological integrity of the sampling matrix and prevent ecological fallacies, all respondents outside the target areas were strictly excluded from the final dataset. Consequently, the final analysis was executed exclusively with valid participants residing entirely within the designated eight central districts, ensuring a statistically robust and geographically controlled sample.

The satisfaction variable used in the collection of primary data is a semantic scale. The satisfaction scale includes the statement, “How would you generally evaluate local independent retailers?” (adapted from Lee et al., 2008), consisting of six options and ranging from “Not Satisfied at All” to “Very Satisfied”. The shopping frequency, on the other hand, is defined as, “How often do you shop at local independent retailers?” and consists of four options, ranging from “Never, Once a month, Once a week, Every day”. The main secondary data used in the research are retailer density and the number of local independent retailers and chain stores. Retailer density is calculated as the number of stores and the rentable retail area (m²) per 1000 people. This metric—frequently utilized by international real estate consulting firms—constitutes a foundational parameter in spatial retail capacity assessments and market analysis (see, for example: Guy 2004). Globally recognized standards for real estate and retail space measurements underscore the necessity of these capacity calculations in determining sustainable commercial supply and market saturation metrics (RICS 2024).

To complement the quantitative survey findings and understand the institutional background of urban retail management in Türkiye, an exploratory semi-structured interview was conducted with a senior licensing official from a major metropolitan district municipality in Ankara characterized by high commercial density. Due to confidentiality and institutional anonymity, the specific identity of the municipality has been withheld. This qualitative insight was utilized specifically to evaluate local capacity planning, market competition entry barriers, and the alignment of municipal regulations with macro-level retail planning concepts."

1.3. Procedure

To operationalize the research framework, a multi-stage data collection and evaluation procedure was executed. The process initiated with the extraction of the sampling registry from the Ankara Chamber of Commerce web portal (atonet.org.tr), isolating retailers under the NACE 47 classification. Due to the decentralized nature of retail data across municipalities and the Ministry of Trade (Ossokina et al., 2024), a rigorous filtering procedure was applied: retailers were manually verified and categorized as either local independent retailers or organized chains based on their registered trade names and institutional addresses.

Following this structural classification, the corporate presence within the sampled districts was evaluated using market benchmarks. Based on the Turkish Competition Authority's reports (rekabet.gov.tr) indicating that corporate chains control over 60% of the FMCG market and command 85% of total turnover despite constituting only 15% of store counts, the spatial impact of the six

largest national players (BİM, A101, Şok, Migros, Carrefour, Tarım Kredi) was systematically mapped. To further evaluate the expansion and capacity of organized retail networks, secondary data on shopping mall densities, procured from commercial research firms, were integrated into the spatial evaluation matrix.

Once the institutional parameters and district-level retail capacities were established, the primary data collection phase was launched. Data collection was administered in 2025 via a standardized telephone survey method, executed by a professional research agency. The gathered survey responses were then synthesized with the calculated independent retail densities and shopping mall metrics. Finally, these consolidated datasets were subjected to statistical and spatial evaluations to determine how the institutional presence of organized and traditional retail formats influences localized market dynamics.

The retail capacity index, which is used to calculate the ratio of supply to total supply in a region, developed similarly to the Bersani index, was used in this study. The retail capacity index is the formula developed by Bilková et al. (2018) and reported by Glerici (2020):

$$\text{Retailer Capacity Index} = S_i - \frac{S_i}{P} \times P_i$$

S_i : i current supply in the municipality (e.g., total number of stores or total square footage).

S : Total supply for the entire region.

P : Total population in the entire region.

P_i : i the resident population of the municipality.

2. Findings

2.1. Demographic Findings

Table 1 presents the findings regarding demographic data.

Table 1: Demographic Findings

Age	Frequency	%	Gender	Frequency	%
18-25	34	6,7	Female	206	40,5
26-35	76	14,9	Male	303	59,5
36-45	85	16,7	Education		
46-64	246	48,3	First School	62	12,2
>65	68	13,4	Bachelor	157	30,8
District from			Post Graduate	38	7,5
Çankaya	116		High School	162	31,8
Altındağ	40		Middle School	38	7,5
Etimesgut	72		Vacation School	52	10,2
Keçiören	87		Marital status		
Mamak	76		Married	155	30,5
Sincan	63		Single	354	69,5
Yenimahalle	14		Income		
Gölbaşı	18		<25000	202	39,7
Pursaklar	21		25001-49999	104	20,4
Ayaş	1		50000-100000	175	34,4
Beypazarı	1		>100000	28	5,5

Note: The average age is 48.5 and the total number of participants is 509.

As seen in the table above, 59.5% of the participants are male. In terms of education level, 31.8% are high school graduates and 30.8% are university graduates. Regarding income level, the majority are in the middle-income group, and the proportion of married individuals is quite high.

2.2. Descriptive Statistics

The table below contains statistics on the frequency of purchases and satisfaction levels reported by participants.

Table 2: Consumers' shopping frequency and satisfaction with local independent retailers in Ankara.

Shopping Frequency	Frequency	%	Satisfaction Level	Frequency	%
Never	8	1,6	Not satisfied	94	18,5
Monthly	119	23,4	Satisfied	415	81,5
Weekly	252	49,5			
Everyday	130	25,5			

As shown in the table above, those who shop at local independent retailers once a week make up approximately half of the participants. The satisfaction rate with local independent retailers is quite high, at around 81%.

2.3. Retailer Density Findings

Data on retailer densities were obtained from the Ankara Chamber of Commerce's web portal. The application within the web portal (atonet.org.tr/) displays data on businesses registered in the trade registry by sector using the OpenStreetMap (openstreetmap.org) interface. Population densities were obtained from the Turkish Statistical Institute (TUIK) data portal (veriportali.tuik.gov.tr/tr). The schematic representation of retailer densities by district of Ankara is shown below.

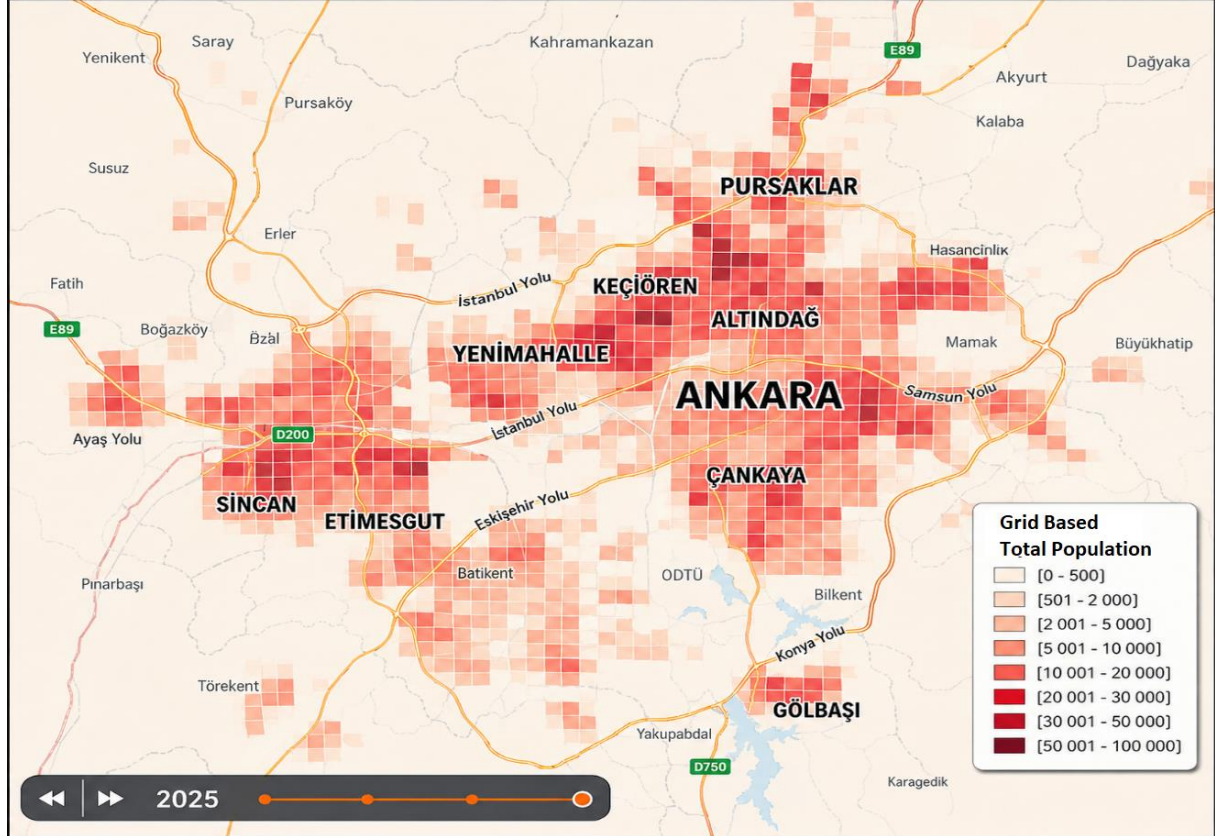
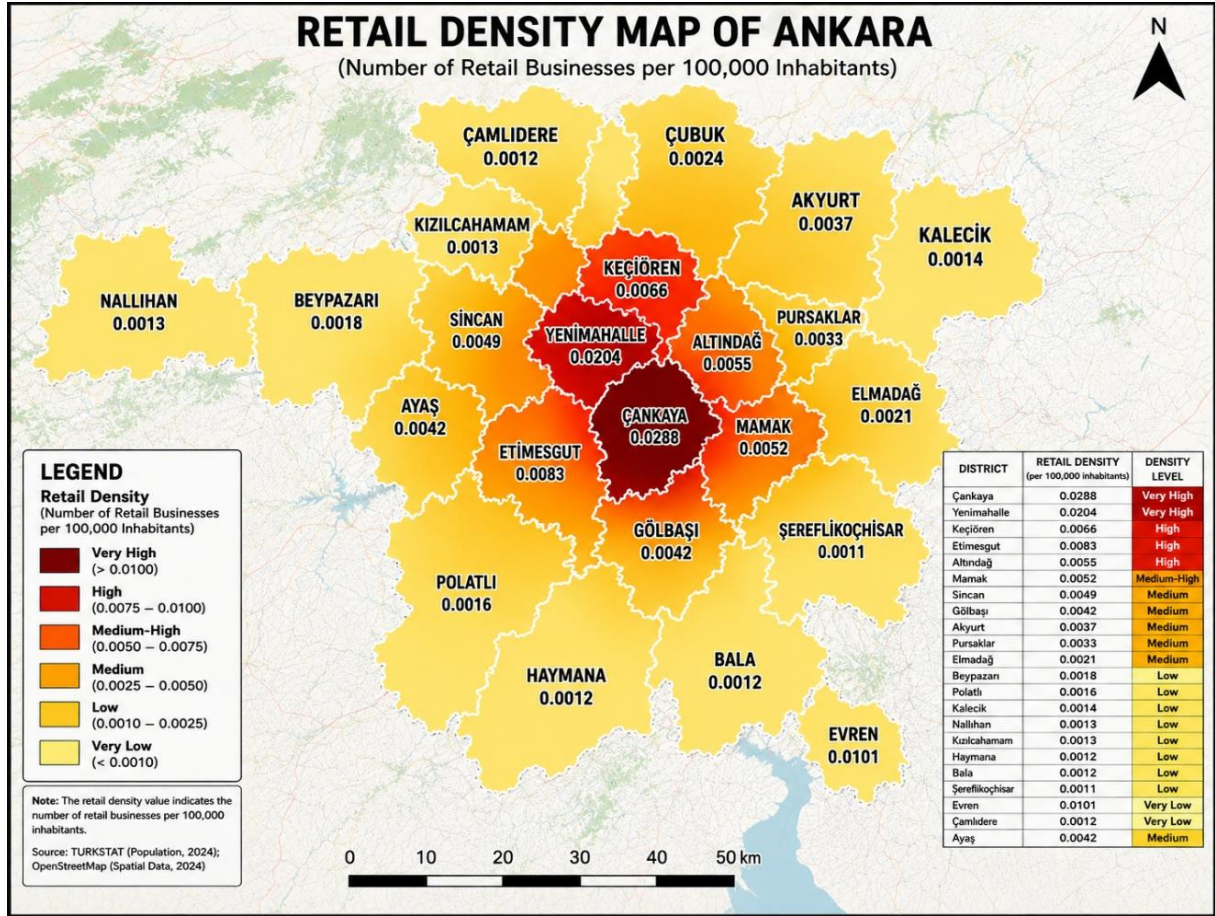


Figure 1: Retail and Population Densities by District

As seen in Figure 1, areas with high population densities also have high retail densities. However, it is noteworthy that suburban districts and those far from the city center, which are notable for their high population density, do not exhibit the same level of retail concentration. Retail concentrations are viewed differently from country to country and even from region to region. In the US, retail concentrations are seen as a problem because they exceed capacity in city centers and, conversely, fall far short of capacity in suburbs (Helm et al., 2020). In China, new retail centers have been established in city centers and suburbs to support retail with state support, but it is stated that these centers weaken older settlements (Zhu & Wang, 2022). In the European Union, this situation was sought to be controlled with the Bersani Act, introduced in 1998. The impact of the Bersani reform on the market structure is calculated by calculating the number of independent retail units in relation to the total number of units (Castellari, 2014). However, there are criticisms in the European Union regarding the Bersani Act, which is said to facilitate the opening of stores by global retailers (Castellari, 2014).

Table 3 shows the density and retail capacity index calculations for Ankara's districts, and the inputs used for these calculations.

Table 3: Total and local retailer statistics and retailer densities by district.

District	Population	Market Count	Area (km ²)	Concentration (Market/km ²)	Index Value	Local Independent	Chain Market
Çankaya	952.198	1.473	268	5.5	487.3432	1061	412
Yenimahalle	721.531	880	274	3.21	133.1155	655	225
Etimesgut	632.458	594	273	2.18	-60.6816	351	242
Mamak	690.329	576	321	1.79	-138.586	363	213
Sincan	605.366	498	420	1.19	-128.638	235	263
Keçiören	931.722	873	759	1.15	-91.4613	508	365
Altındağ	418.072	501	573	0.87	68.23756	360	141
Pursaklar	168.881	134	157	0.85	-40.8152	79	55
Gölbaşı	172.810	192	1.650	0.12	13.11771	94	98
Ayaş	13.136	71	1.158	0.06	57.40242	48	23
Beypazarı	48.359	5	1.868	0.002	-45.0583	1	4

Note: Retailer numbers from the ATO web portal cover food retailers in sectors with NACE codes 45 and 47 (total 6118). Chain supermarkets include the six largest chain supermarkets nationwide. According to TURKSTAT data, the total number of G-class retailers in 2025 is 106,000. Population data is taken from the TURKSTAT data portal based on 2026 figures.

As shown in Table 3, Çankaya, the most populous district of Ankara, has the highest retailer capacity index. This means that the number of stores in this district exceeds its capacity. The same applies to Yenimahalle, Altındağ, Gölbaşı, and Ayaş. On the other hand, Sincan is the district with the lowest retailer capacity in terms of the number of stores. This means that the district still needs more retailer investment. Similarly, Etimesgut, Mamak, Sincan, Keçiören, Pursaklar, and Beypazarı districts are also seen to be lacking in terms of retailer investment. A striking element in the table is that in

areas lacking retailer investment, the ratio of chain supermarkets to local independent retailers is close to or higher.

To offer a different perspective on the above data and to verify the ratio of local markets with observations, a walk was conducted on Tunalı Hilmi Street, one of the busiest streets in Çankaya. During the walk, the names of the retailers on the street, the type of store, and whether they were chain supermarkets were noted. This type of study, called the Clone Town Britain survey, examines how unique cities remain (New Economics Foundation, 2007). The observation revealed 15 different retailers (7 of which are food), 10 of which are chain stores, and 40 are local independent retailers. A score is then created based on the ratio of independent retailers to chain stores and the types of stores. As a result of the observation, Tunalı Hilmi Street's Clone Town Britain Score was determined to be 75. According to this score, Çankaya district is considered to have a high number of independent retailers and to be a Hometown, meaning a unique town.

Table 4 shows retail densities in European capitals and Ankara. Shopping mall densities are shown based on Gross Leasable Area (GLA). This calculation does not include unorganized local independent retailers.

Table 4: Shopping mall occupancy rates in European capitals.

Urban	Retail concentration (m ² /1000 inhabitants)
Prague	~876 m ²
Warsaw	~826 m ²
Bucharest	~650 m ²
Budapest	~619 m ²
Istanbul	~450 m ²
Madrid	~300 m ²
London	~100 m ²
Rome	~300 m ²
Paris	~250 m ²
Ankara	~304 m ²

Source: Data adapted from the study "Europe: Shopping center density – CEE/SEE cities clearly overstored", RegioData Research, 2023.

As seen in Table 4, some European capitals have low concentrations of modern retail spaces. Ankara has an average value among these capitals. The fact that the density of shopping malls is average indicates that main street retail is still at a higher level. However, its higher density compared to capitals like Paris and London can be considered an indication that the cultural fabric is not as well preserved as in those cities.

2.4. Hypothesis Testing and Inferential Statistics

Statistical analyses were conducted to examine the relationships between retailer concentration and satisfaction, retail market density, and shopping frequency variables. Since non-metric scales were used, the analyses were performed using non-metric methods.

2.4.1. The Relationship Between Market Density and Local Independent Retail

To test Hypothesis 1, which posits a significant positive correlation between retailer density and local independent retail, an ordinal logistic regression analysis was conducted. The results presented in Table 5.

Table 5: Ordinal Logistic Regression Results Regarding the Effect of the Number of Local Independent Retailers on Retail Concentration

Variable	Estimate (B)	Standard Error	Wald	df	p	95% Confidence Interval [Lower, Upper]
Threshold Values						
[Intensity = 0,00]	-6,85	1,01	46,09	1	0.000	[-8,82, -4,87]
[Intensity = 0,10]	-3,73	0,25	228,77	1	0.000	[-4,21, -3,24]
[Intensity = 1,00]	-2,07	0,14	210,83	1	0.000	[-2,35, -1,79]
[Intensity = 1,30]	-0,46	0,10	21,99	1	0.000	[-0,65, -0,27]
[Intensity = 2,00]	0,25	0,10	6,73	1	0.009	[0,06, 0,44]
[Intensity = 2,40]	0,98	0,11	82,66	1	0.000	[0,77, 1,19]
[Intensity = 3,50]	1,13	0,11	102,97	1	0.000	[0,91, 1,35]
Estimators						
Local_LH = 1,00	-1,85	0,23	62,80	1	0.000	[-2,31, -1,39]
Local_LH = 2,00	0 ^a	.	.	0	.	.

-2 Log Likelihood = 194,976; $\chi^2(1) = 73,628$; $p < ,001$.

Link function: Logit.

According to the results of the ordinal logistic regression analysis, the number of local independent retailers (Local_LH) has a statistically significant effect on retailer density (Wald = 62.797, $p < .001$). The logistic coefficient of the group with a locality score of 1.00 was found to be negative ($\beta = -1.853$). This indicates a positive trend between regions with a high concentration of local independent retailers and retailer density scores; conversely, regions with chain stores or low locality levels tend to cluster in lower density categories. Consequently, hypothesis 1 is accepted.

2.4.2. The Relationship Between Shopping Frequency and Consumer Satisfaction

In order to examine Hypothesis 2, which evaluates the significant positive correlation between consumers' shopping frequency and their satisfaction levels, Spearman correlation analysis was utilized. The findings of the Spearman correlation analysis are shown in Table 6.

Table 6: Spearman Correlation Coefficients Between Variables

Variable	1	2	3	4
1. Number of Local Retailers	—			
2. Local independent retailer satisfaction	-0.03	—		
3. Retailer density in the district	0.49**	-0.06	—	
4. Shopping frequency	0.00	0.12**	0.04	—

Note: *N* is between 497 and 509. Coefficients represent Spearman's $\rho(p)$ correlation. $p < 0.01$ (two-tailed).

According to these results, a positive, moderate, and statistically significant relationship was found between the "shopping frequency" variable and "local independent retailer satisfaction" ($r_s = 0.12$, $p < .01$). This indicates that high-level consumers' satisfaction increases their shopping frequency. The findings validate H2.

2.4.3. The Impact of Local Independent Retailers on Shopping Frequency

Finally, Hypothesis 3, which evaluates the positive relationship between retailer density and consumers' satisfaction, was tested. The relationship between retailer density and local retailer satisfaction was confirmed by Chi-Square analysis ($\chi^2(28) = 51.552$, $p < 0.01$). However, the insignificant correlation coefficients ($\Gamma = -0.065$, $p > 0.05$) indicate that satisfaction with local independent retailers is not dependent on retailer density. While this analysis does not reveal a definitive relationship, it shows a connection between them. In other words, there is overall satisfaction with local independent retailing, but this positive satisfaction rate increases in densely populated areas. As a result, hypothesis 3 is validated.

3. Discussion

This study investigated the role of local independent retailing in urban retail restructuring within the province of Ankara, specifically examining the interconnected dynamics of urban retail density, consumer satisfaction, and shopping frequency across central and peripheral districts. The empirical findings provide substantial evidence regarding how traditional retail formats navigate modern urban transformations. Most notably, the results demonstrate that local independent retailers effectively maintain their socio-economic positions, yielding high overall consumer satisfaction. Statistical analyses confirm that this satisfaction is a critical driver of consumer behavior, exhibiting a positive, significant relationship with shopping frequency ($r_s = 0.12$, $p < 0.01$). Furthermore, the spatial structure of the city plays a determining role; ordinal logistic regression underscores that a higher concentration of local independent retailers significantly elevates urban retail density scores (Wald = 62.797, $p < 0.001$). While independent retailer satisfaction does not strictly depend on density, high-density urban environments visibly amplify positive consumer sentiment. These outcomes offer critical insights into how localized synergies and spatial capacities shape contemporary consumer preferences in a shifting retail landscape.

In this context, retailer density—frequently conceptualized as retail saturation or retail concentration—reflects the structural equilibrium of retail supply within a specific region based on the absolute number and spatial distribution of commercial establishments. Higher retailer density typically implies an expanded spectrum of services available to residents, signaling robust retail capacity, whereas low density underscores insufficient retail provision. The findings of this study demonstrate that retail density within Ankara is highly polarized, reaching its peak in densely populated urban centers and dropping significantly in sparsely populated peripheral and rural districts. This spatial distribution aligns with emerging global dynamics; as Okoli et al. (2024) note, the post-pandemic rise of remote working has driven population shifts toward suburban and rural corridors in search of enhanced lifestyle quality. Consequently, these newly growing peripheral areas increasingly face structural shortages in retail capacity. Corporate chain stores, operating on rigid per-square-meter productivity targets, can rapidly capitalize on these underserved markets by establishing new branches. However, as observed in our study, this corporate expansion does not necessarily guarantee an increase in aggregate retail capacity. Instead, by inducing aggressive competitive pressures that displace traditional independent vendors, such corporate entry can paradoxically lead to a net reduction in localized retail diversity and overall capacity.

The findings further indicate that local independent retailers make a positive contribution to regional retail capacity. However, the rapid expansion of corporate chain stores in suburban and rural areas adversely affects the sustainability of local independent retailing. Konishi (2005) argues that high retailer density attracts consumers because a greater variety of products increases the likelihood of finding desired goods. Consistent with this argument, the data show that local independent retailers are predominantly located in areas with high retailer density. This suggests that in suburban and rural areas with low market saturation, consumers are less likely to patronize local independent retailers.

Although corporate chain stores may initially mitigate localized retail shortages by opening new outlets, their rapid expansion often produces unintended socio-economic consequences. As urban consumption becomes increasingly monopolized by a limited number of corporate actors, vulnerable urban areas begin to experience severe structural retail deficits (Frago et al., 2024). While e-commerce platforms and corporate retailers continuously optimize their sales performances, this trend exacerbates structural imbalances within local urban economies. In response to similar challenges in Europe, various macro-level frameworks have been instituted to preserve local cultural and commercial heritage by regulating retail expansions. A prominent example is Italy's Bersani Act, which strictly integrates retail capacity assessments and competitive market conditions into the planning and licensing of new establishments.

In sharp contrast to these European models, a qualitative interview conducted with a senior licensing official from a major metropolitan district municipality in Ankara reveals a significant regulatory vacuum regarding retail competition and capacity planning in Türkiye. Municipal authorities in the capital primarily confine their oversight to operational standards—such as sanitation, hygiene compliance, zoning codes, security approvals, and mandatory proximity to sensitive zones like schools. The absence of comprehensive guidelines governing retail capacity and market competition highlights a lack of strategic oversight and long-term vision for the urban commercial ecosystem. Consequently, permitting regional retail capacity to evolve organically without a structured institutional framework threatens the long-term viability of traditional commerce and intensifies structural market uncertainties. Based on these findings, the study offers recommendations for policymakers, local independent retailers, and future academic research. Policymakers should incorporate competition considerations into local governance frameworks in ways that support urban economic development. Developing city-specific strategies to enhance retail capacity and integrating these strategies into urban planning processes are strongly recommended. In addition to health and safety requirements, the economic implications of new store openings should also be considered.

The academic literature highlights that luxury retail stores located on high streets tend to maintain their market positions over time (Frago et al., 2024). A limitation of the present study is that local independent retailers could not be analyzed according to retail category or store type. Another limitation is that the functional roles of urban centres and sub-centres fall outside the scope of the analysis. Future research should investigate whether local retailers can improve their performance by adapting their store concepts to evolving consumer preferences. Chain supermarkets are currently experimenting with innovative retail formats, including omnichannel models that integrate physical and online shopping experiences, as well as in-store facilities that allow customers to prepare and consume purchased food. Another promising area for future research involves examining the impact of retail parks promoted by governments or local authorities on urban economies. In particular, the potential economic and social effects of clustering retailers in centralized locations warrant further investigation.

CONCLUSION

In the study, all hypotheses are validated. The results of the correlation and ordinal logistic analysis provide strong evidence supporting the hypotheses. The first hypothesis, that retailer density is high in areas with a high concentration of local independent retailers, was supported. Limitations of this hypothesis include, firstly, the comparison with a very small number of retailers, and secondly, its geographical scope being limited. The second hypothesis, that the frequency of shopping at local independent retailers increases customer satisfaction, was supported. Limitations of this hypothesis include, firstly, that satisfaction generally includes local independent retailers. However, satisfaction levels will differ between a local clothing store and a local grocery store. Secondly, the generalizability of the data is limited to Ankara. The situation may not be similar in cities that have preserved their cultural fabric or have fully modernized. The third hypothesis, that retailer density increases the frequency of shopping, was supported.

The spatial distribution of local independent retailing in Ankara cannot be explained solely by district population. The city's economic geography, shaped by the public, commercial, administrative, and service functions performed by its central business district (CBD) and sub-centers, plays a significant role in determining the concentration and spatial distribution of retail activities (Berry, 1967; Guy, 2007). In particular, central districts such as Çankaya, Altındağ, and Yenimahalle provide favorable conditions for local independent retailers due to the concentration of government institutions, universities, commercial areas, and a substantial daytime population. Çankaya, the city's principal central district, stands out with its highly developed service sector, well-established transportation infrastructure, and strong integration into national and international administrative and economic networks. Daytime population and visitor inflow generates the main commercial activity. (Clarke, 2002; Teller & Reutterer, 2008). In contrast, peripheral districts such as Beypazarı and Ayaş exhibit retail dynamics that are shaped primarily by their resident populations and local demand. Although these districts retain a more traditional urban structure, their economic activities are relatively limited and operate predominantly at the local scale. Furthermore, transportation infrastructure and the provision of urban services are less developed than in the central districts. These differences indicate that, although population is an important explanatory variable, it is insufficient on its own to explain spatial variations in retail concentration. The empirical analyses of retail concentration conducted in this study were carried out within a quantitative analytical framework based primarily on district population. Consequently, the functional characteristics of the central business district and sub-centers, differences between daytime and nighttime populations, and the influence of the city's functional urban structure on retail activities were not incorporated into the analysis. This limitation should therefore be taken into account when interpreting the findings. Future research incorporating these factors would contribute to a more comprehensive understanding of the spatial patterns of local independent retailing in Ankara.

The contributions of this study can be summarized under several dimensions. First, unlike studies that examine the transformation of urban retail primarily through the expansion of shopping malls, chain stores, or e-commerce, this study conceptualizes local independent retailing as an active component of urban retail transformation rather than merely a passive outcome of these processes. Second, by examining the spatial distribution of local independent retailers in Ankara, the factors influencing their location patterns, as well as consumers' overall satisfaction with local independent retailers and the frequency of their shopping behavior, the study addresses a relatively underexplored area in the literature. Furthermore, based on field data collected from 509 respondents, it provides empirical evidence that strengthens debates which have largely remained conceptual or theoretical. Third, the study proposes a multidimensional analytical framework that

integrates spatial variables with consumer behavior and local independent retailing. By interpreting statistical findings in conjunction with the spatial characteristics of the study area, it demonstrates a methodological approach that may serve as a useful reference for future research on urban retail dynamics. Finally, the findings offer practical policy implications by identifying the urban centers and contextual conditions under which local independent retailers can sustain or enhance their competitive advantage in cities increasingly dominated by chain stores. In doing so, the study contributes to the development of more balanced, resilient, and sustainable urban retail policies.

Compliance with Ethical Standards

1. Conflict of Interest:

The authors declare that they have no actual, potential, or perceived conflicts of interest related to this article.

2. Ethics Committee Approval:

Bayburt University received ethical committee approval with document registration number 206846 dated 03.06.2024.

3. Generative Artificial Intelligence (GAI) Usage Statement:

The authors used Grammarly and ChatGPT (OpenAI) for language editing and improvement of academic expression. All scientific content were developed and verified by the authors.

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KAYNAKÇA:

Alexander, B., & Kent, A. (2016). Retail environments. In A. Petermans & A. Kent (Eds.), *Retail design* (pp. 25–26). Routledge.

Ankara Ticaret Odası. (t.y.). ATO veri portalı. Erişim tarihi 1 Mayıs 2026, <https://portal.atonet.org.tr>

Baics, G. (2016). The geography of urban food retail: Locational principles of public market provisioning in New York City, 1790–1860. *Urban History*, 43(3), 435–453.

Berry, B. J. (1967). *Geography of market centers and retail distribution*. Englewood Cliffs, NJ: Prentice-Hall.

Bilková K., Križan F., Horňák M., Barlík P., Zubriczký G., (2018). Food and non-food retail change in a post-communist country: A case study of the Gemer region in Slovakia. *Bulletin of Geography. Socio-economic Series* 39: 7–20. DOI 10.2478/bog-2018-0001.

Bonanno, A., Castellari, E., & Sckokai, P. (2014). Trade Liberalization and Food Retail Structure: The Italian Case.

- Çakır, M., Kong, X., Cho, C., & Stevens, A. (2020). Rural food retailing and independent grocery retailer exits. *American Journal of Agricultural Economics*, 102(5), 1352–1367. <https://doi.org/10.1111/ajae.12131>
- Cissé, I., & Dubé, J. (2024). Survival of new and small retail businesses facing mega-retailers in non-metropolitan areas: The case of Walmart in the province of Quebec. *Growth and Change*, 55(1), 1–28. <https://doi.org/10.1111/grow.12706>
- Clarke, G. (2002). Geodemographics, marketing and retail location. In *Applied Geography* (pp. 577–592). Routledge.
- Clarke, I., & Banga, S. (2010). The economic and social role of small stores: A review of UK evidence. *The International Review of Retail, Distribution and Consumer Research*, 20, 187–215. <https://doi.org/10.1080/09593961003701783>
- Clerici, M. A. (2020). Retail Trade Restructuring Paths on the Fringes of a Strong Region: The Case of Lower Lombardy, Italy (2001-2019). *Bollettino della Società Geografica Italiana*, 127-146.
- Coca-Stefaniak, A., Hallsworth, A. G., Parker, C., Bainbridge, S., & Yuste, R. (2005). Decline in the British small shop independent retail sector: Exploring European parallels. *Journal of Retailing and Consumer Services*, 12(5), 357–371.
- Fildes, R., Ma, S., & Kolassa, S. (2022). Retail forecasting: Research and practice. *International Journal of Forecasting*, 38, 1283–1318. <https://doi.org/10.1016/j.ijforecast.2019.06.004>
- Frago, L., Morcuende, A., & Lloberas, D. (2024). Towards a retailless city? A comparative analysis of the retail desertification between a global and a local commercial strip in Barcelona. *Urban Science*, 8(3), 126.
- Gilbert, D. (2003). *Retail marketing management*. Prentice Hall.
- Guy, C. (1994). The Retail Development Process: Location, *Property and Planning*. London: Routledge.
- Guy, C. (2007). Planning for retail development: a critical view of the British experience. Routledge.
- Hall, S. M. (2011). High street adaptations: Ethnicity, independent retail practices, and localism in London's urban margins. *Environment and Planning A: Economy and Space*, 43(11), 2571–2588. <https://doi.org/10.1068/a4494>
- Helm, S., Kim, S. H., & Van Riper, S. (2020). Navigating the 'retail apocalypse': A framework of consumer evaluations of the new retail landscape. *Journal of Retailing and Consumer Services*, 54, 101683.
- Ho, H. D., Ganesan, S., & Oppewal, H. (2011). The impact of store-price signals on consumer search and store evaluation. *Journal of Retailing*, 87(2), 127-141.
- Huddleston, P., Whipple, J., Nye Mattick, R., & Jung Lee, S. (2009). Customer satisfaction in food retailing: comparing specialty and conventional grocery stores. *International Journal of Retail & Distribution Management*, 37(1), 63-80.
- Jarah, S., Zhou, B., Abdullah, R., Lu, Y., & Yu, W. (2019). Urbanization and urban sprawl issues in city structure: A case of the Sulaymaniah Iraqi Kurdistan Region. *Sustainability*, 11, 485. <https://doi.org/10.3390/su11020485>
- Juhl, H. J., Kristensen, K., & Østergaard, P. (2002). Customer satisfaction in European food retailing. *Journal of retailing and consumer services*, 9(6), 327-334.

- Kara, A., Şengün, H., Meydan Yıldız, S. G. & Özden, E. (2026). The Transformation of Local Independent Retail in City Centers and Its Effects on the City's Macroform: The Case of Ankara. *Erzurum Teknik Üniversitesi Sosyal Bilimler Enstitüsü Dergisi* (25), 63 -78. Doi: 10.29157/etusbed.1795490.
- Konishi, H. (2005). Concentration of competing retail stores. *Journal of Urban economics*, 58(3), 488-512.
- Krejcie, R. V., & Morgan, D. W. (1970). "Determining sample size for research activities". *Educational and Psychological Measurement*, 30(3), 607-610.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610.
- Lee, S. E., Johnson, K. K., & Gahring, S. A. (2008). Small-town consumers' disconfirmation of expectations and satisfaction with local independent retailers. *International Journal of Retail & Distribution Management*, 36(2), 143–157.
- Longley, P., Boulton, C., Greatbatch, I., & Batty, M. (2003). Strategies for integrated retail management using GIS. In *Advanced spatial analysis: The CASA book of GIS*. ESRI Press.
- Lopez, R. A., Marchesi, K., & Steinbach, S. (2024). Dollar store expansion and independent grocery retailer contraction. *Applied Economic Perspectives and Policy*, 46(2), 514–533. <https://doi.org/10.1002/aepp.13398>
- Madison, J. H. (1976). Changing Patterns of Urban Retailing: The 1920s. *Business and Economic History*, 102-111.
- Maraschin, C., & Krafta, R. (2013). Growth dynamic of retail locations: A methodological approach using a logistic model. *European Journal of Geography*. <https://doi.org/10.4000/cybergeogeo.26002>
- McArthur, E., Weaven, S., & Dant, R. (2016). The evolution of retailing: A meta review of the literature. *Journal of Macromarketing*, 36(3), 272-286.
- Muldrew, C. (2003). Economic and urban development. A Companion to Stuart Britain, 148-65.
- New Economics Foundation. (2007, June 1). *Clone town Britain*. <https://neweconomics.org/2007/06/clone-town-britain>
- OECD. (2004). *Glossary of statistical terms*. <https://www.paris21.org/sites/default/files/1300.pdf>
- Okoli, I., Appoh, M., Alabi, O. A., Ogunwale, B., Gobile, S., & Oboyi, N. (2024). Remote work dynamics and its influence on US urbanization patterns: A review. DOI: <https://doi.org/10.54660/IJMRGE.2-1035>.
- Oman, M. (2006). *Perakendecilik türleri* (Yayın No. 883). Anadolu Üniversitesi Açıköğretim Fakültesi.
- Ossokina, I. V., Svitak, J., & Teulings, C. N. (2024). The urban economics of retail. *Regional Science and Urban Economics*, 108, 104026.
- Paul, J., Sankaranarayanan, K. G., & Mekoth, N. (2016). Consumer satisfaction in retail stores: Theory and implications. *International Journal of Consumer Studies*, 40(6), 635-642.
- Pitfield, R. R. (1982). The retail trade. In *Mastering commerce*. Macmillan. https://doi.org/10.1007/978-1-349-16705-0_5

- RegioData Research. (2023, April 20). Europe: Shopping center density – CEE/SEE cities clearly overstored. <https://www.regiodata.eu/en/europe-shopping-center-density-cee-see-cities-clearly-overstored/>
- RICS (Royal Institution of Chartered Surveyors). (2024). RICS Property Measurement Professional Statement (2nd ed.). London: RICS.
- Rekabet Kurumu. (2023). *Türkiye HTM perakendeciliği sektör incelemesi nihai raporu*. <https://www.rekabet.gov.tr/Dosya/htm-sektor-nihai-raporu.pdf>
- Sadun, R. (2015). Does planning regulation protect independent retailers?. *The Review of Economics and Statistics*, 97(5), 983-1001. https://doi.org/10.1162/REST_a_00492
- Samburu, P. M., Owino, F. O., & Mogoria, N. A. (2023). Urban spatial structure and the density of retail shops in cities. *Architecture Research*, 13(2), 59–83. <https://doi.org/10.5923/j.arch.20231302.03>
- Shankar, V., Kalyanam, K., Setia, A., Golmohammadi, P., Tirunillai, A. S., Douglass, T., Hennessey, J., Bull, J. S., & Waddoups, R. (2021). How technology is changing retail. *Journal of Retailing*, 97(1), 13–27. <https://doi.org/10.1016/j.jretai.2020.10.006>
- Smith, A., & Sparks, L. (2011). The role and function of the independent small shop: The situation in Scotland. *The International Review of Retail, Distribution and Consumer Research*, 205–226. <https://doi.org/10.1080/095939600342361>
- Teller, C., & Reutterer, T. (2008). The evolving concept of retail attractiveness: What makes retail agglomerations attractive when customers shop at them?. *Journal of Retailing and Consumer Services*, 15(3), 127–143. <https://doi.org/10.1016/j.jretconser.2007.03.003>
- Türkiye İstatistik Kurumu. (t.y.). TÜİK veri portalı. Erişim tarihi 1 Mayıs 2026, <https://veriportali.tuik.gov.tr/tr>
- Vaja, B. R. (2015). Retail management. *International Journal of Research and Analytical Reviews*, 2(1), 22–28.
- Yamane, T. (1967). *Statistics: An Introductory Analysis* (2nd Ed.). New York: Harper and Row.
- Zhu, Y., & Wang, D. (2022). Growing threat to urban retail? Residential suburbanization and shopping behavior change in Shanghai, China. *Cities*, 131, 104029.