

THE GEOGRAPHY OF RETAIL TRADE AND SERVICES IN ANNABA'S CITY. ALGERIA

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Abstract

This paper proposes a methodological approach to the analysis of commercial centralities in a compact city center. We have attempted to analyze the rationale behind the spatial reorganization of commercial units in the city of Annaba. To this end, several indicators have been selected as relevant, in particular: residential location, consumer mobility conditions, and certain consumption practices and choices.

Using Annaba's case as a starting point. The aim is to assess the relevance of classic models of retail geography and to understand the new changes in the commercial fabric of Annaba's inner city after several years of reconfiguration between the center and the periphery.

Keywords: *retail trade, mutation, center-periphery, city of Annaba, Algeria.*

1. Introduction

The choice of location for commercial activities was traditionally been based on theories of firm location in a geographical economy [1]. These theories make it possible to study geographical location in a monocentric model where all resources are located in a single center. This high concentration of activities and attractiveness has given rise to the concept of «*Centrality*» [2]. However, this concept has developed over several decades of spatial recomposition on different scales depending on the operating mode or planning method. The evolution of theoretical thinking has led to the development of commercial geography as a sub-discipline of geography, an entire discipline dealing with tertiary activities including the retail sector. Given its position in the city, this sector is particularly interesting for a sustainable city [3, 4], as it develops from a socio-spatial point of view through new political, economic and social issues [5, 6].

Fleury [7] mention that many studies have applied the concept of centrality to the study of the retail commercial structure in urban areas, following the same principles as the body of work on central location introduced by Christaller (1933) and Lösch (1941) on the relationship between the size and spacing of commercial centers in intra-urban space. Carol [8] identified a hierarchy of centers with strongly differentiated functions and influence. Berry's work formalized this type of approach by identifying a combination of hierarchy, land rent and specialization [9]. Mérenne-Schoumaker [10] adds that Garner and Scott developed a more concrete model of retail distribution incorporating land rent. Scott (1970) studied the relationship between the type of retailing and the ability to pay a given level of rent, and proposed a concentric zoning scheme for different types of retailing. While Garner (1966) proposed a similar model by adding the effect of shopping centers.

In recent years, commercial geography has evolved considerably in terms of definitions [11] and levels of action [12], with town center retailing undergoing a major metamorphosis worldwide, with the growing deployment of large out-of-town retail chains to the detriment of small town center retailers [13]. The way in which these new forms of retail has been established has transformed the commercial fabric of towns, leading to the emergence of new commercial centers on the outskirts of towns [14, 15, 16]. In Algeria, this is not entirely the case, as large-scale retailing is struggling to establish itself in the country's largest towns due to the lack of authorization and appropriate planning [17]. Since French colonization, the distribution of shops in the main Algerian towns has been dominated by the phenomenon of centrality, which has led to a gradual increase in the range of shops on offer. There is a very high level of retailing in the center, but less on the outskirts. The structural reform of the 1980s led to the emergence of a dynamic commercial sector and profound changes in the logic of the commercial offer. Our consideration refers to the town of Annaba, which witnessed a phenomenon that is upsetting the old center-periphery balance has been apparent for two decades, with the town experiencing a major migration of certain retail outlets from the center to the outskirts.

Since then, the question of the impact of commercial change on town center trade has continued to be at the center of academic debate [18]. Retail outlets such as food shops have declined in the town center, while clothing and service outlets have expanded, creating a shortage of supplies in Annaba town center. However, what is the reality of the commercial

fabric in Annaba town center today? Given the increasingly polycentric nature of Algerian towns and cities, can we say that the commercial hierarchy still exists within the central areas? Finally, what logic has guided this transformation of the Algerian city?

The city of Annaba, for its part, has undergone a very active urbanization process in recent years, particularly in terms of urban sprawl [19], which make it a very complex and problematic city [20]. We are interested in the impact of these urban dynamics on commercial functioning by addressing residential location and consumer mobility, but also by integrating socio-cultural factors associated with consumer behavior. Our approach enables us to understand the overall structure of retail trade and services in the city under study, and aims to analyze and understand the logic of commercial distribution between the center and the periphery, in order to provide a better account not only of the economic and spatial functioning of the city, but also of its socio-spatial structure.

2. Methodology

Our primary objective in the research presented was to find coherent answers to specific research questions related to the logic of locating commercial units in the city of Annaba. To this end, the approach to the work was mainly empirical, favoring fieldwork. The empirical material collected in two ways in order to gather the necessary quantitative and qualitative data. The first consisted of carrying out a census of commercial units, where the quantitative data mainly concerned quantifiable elements: the number of retail outlets and commercial services distributed in the commune of Annaba. We carried out the census and classification of commercial activities using the digital platform "SIDJILCOM", an electronic portal of the National Centre of the Trade Register that enables statistical searches to be carried out in the national database of companies.

The second part of the data consists of empirical studies based on the collection of qualitative data, which will enable us to understand how these commercial offers are distributing in space to make available to end users. To accomplish this. The unavailability of the mapping tool at the level of the Directorate of Commerce or the National Centre of the Trade Register in the municipality of Annaba, has led us to create our own geographical database of commercial entities in the city according to a field survey carried out in November 2021 to February 2022 in two stages:

The first stage consists of collecting data using the technique of observation in situ and the recording of elements in the location of the phenomenon under study. Photography is also a highly expressive and descriptive research tool for urban phenomena therefore valid in any analysis and method through vision and its interpretation. With this in mind, we adopted the division of Annaba's Urban Planning and Construction Department that divide the city into five major urban sectors, which commercial activity is distributing across its territory. After carrying out a detailed analysis, we selected two representative sectors as case studies, with significantly different commercial concentrations to meet our initial objectives:

The first representative sector back to the urban sector n°1 (the town center):

Consisting of an urban fabric of the first European New Urban Housing Zones: collective housing complexes designed in the form of ground floor + 3 stores buildings that were built during the colonial period around the 1950s. Due to the large surface area of this sector, we

have chosen a portion that perfectly sums up the phenomenon under study; it corresponds to the colonial town center in a star-shaped grid.

The second representative sector back to the urban sector n°3 (the West Plain):

Composed by a Plaine Ouest I network and a Plaine Ouest II network, where the Plaine Ouest II network complements the first network to the south and west to ensure connectivity between the different neighborhoods in the two areas. This new peripheral extension creates a new point of accessible and attractive commercial density. We are going to choose the most representative section of our phenomenon, which corresponds to the section that crosses the Al-Abtal residence as far as Sidi-Achour residence, with its linear grid.

The second stage, it was necessary to explore a questionnaire with retailers to understand the logic of this quantitative and qualitative distribution between the town center and the periphery. Mérenne-Schoumaker [21] adds, «*While the preceding analyses (spatial organization of facilities and the dynamics of change) seek to clarify the characteristics of spatial distribution, they do not explain the reasons for location. In this area, surveys of retailers prove necessary to translate the factors of choice at the level of regions or towns, neighborhoods or locations*». That was the case; we selected a targeted random questionnaire where our case study includes 1025 retail outlets and 333 services, 1358 as a whole of commercial units. Our sample size was 868 specializing in retail and commercial services between the two sectors studied in the city, which was the number of respondents required with a margin of error of 2% and a confidence level of 95%. We were satisfied with the number of 180 samples in order to avoid repetitive responses given the proximity of the commercial units. Our questionnaire was direct with each individual in our selection of retailers, with the aim of understanding their motivation in choosing location.

3. Results and discussion

The analysis will focus on the exhaustive census of commercial establishments, where cartographic development has made it possible to show their true location in space, including:

-The town center (Figure 1) where retail trade and commercial services are gradually becoming distinctive in terms of the density and type of shops established there, a commercial specialization consisting essentially of ground floor retailing of clothing, jewelers, leather goods and beauty products as well as service activities related to accommodation and catering. There are also shopping arcades, operations marked by their density of retail occupancy mainly for clothing, footwear and cosmetics. Concentration of this type of activity can be seen on the first and second floors of buildings where services such as property rental management, financial insurance activities, and administrative contract work are very different from the density of services...

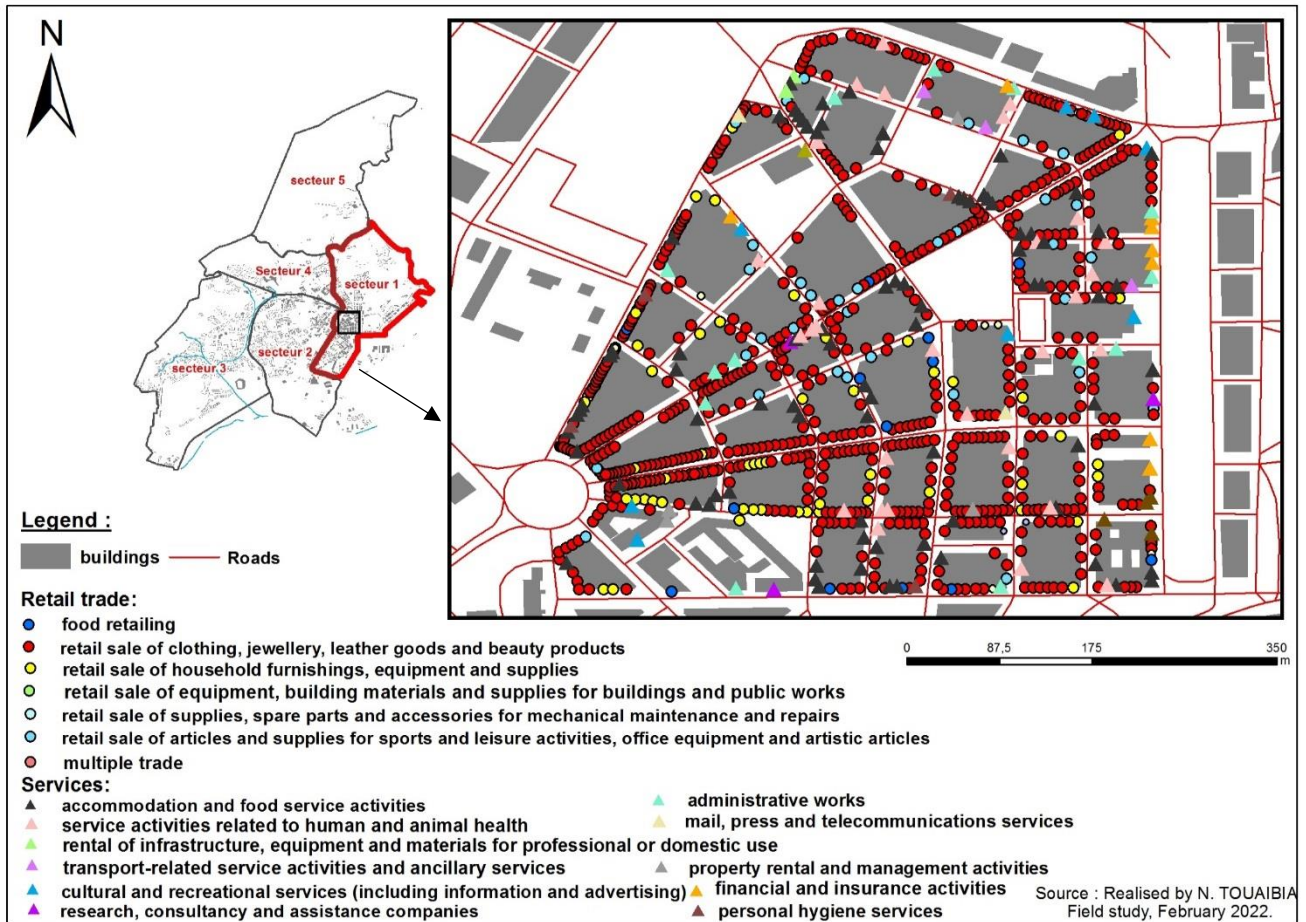


Figure 1: The distribution of commercial establishments in sector n°1.

-The periphery (Figure 2) are characterized above all by local food retailing rather than non-food retailing; a high density of ground floor retailing, including large general food shops and mini-markets. There is also a large volume of bulky goods retailing, including household supplies, equipment and furnishings. Retail sale of equipment, building materials and supplies for buildings and public works. Retail trade in articles and supplies for sports and leisure activities, office equipment and artistic articles... In the same case as in the town center, there is a certain density of the same commercial services on the upper floors of the buildings, while on the ground floor there are mainly restaurant-related service activities.

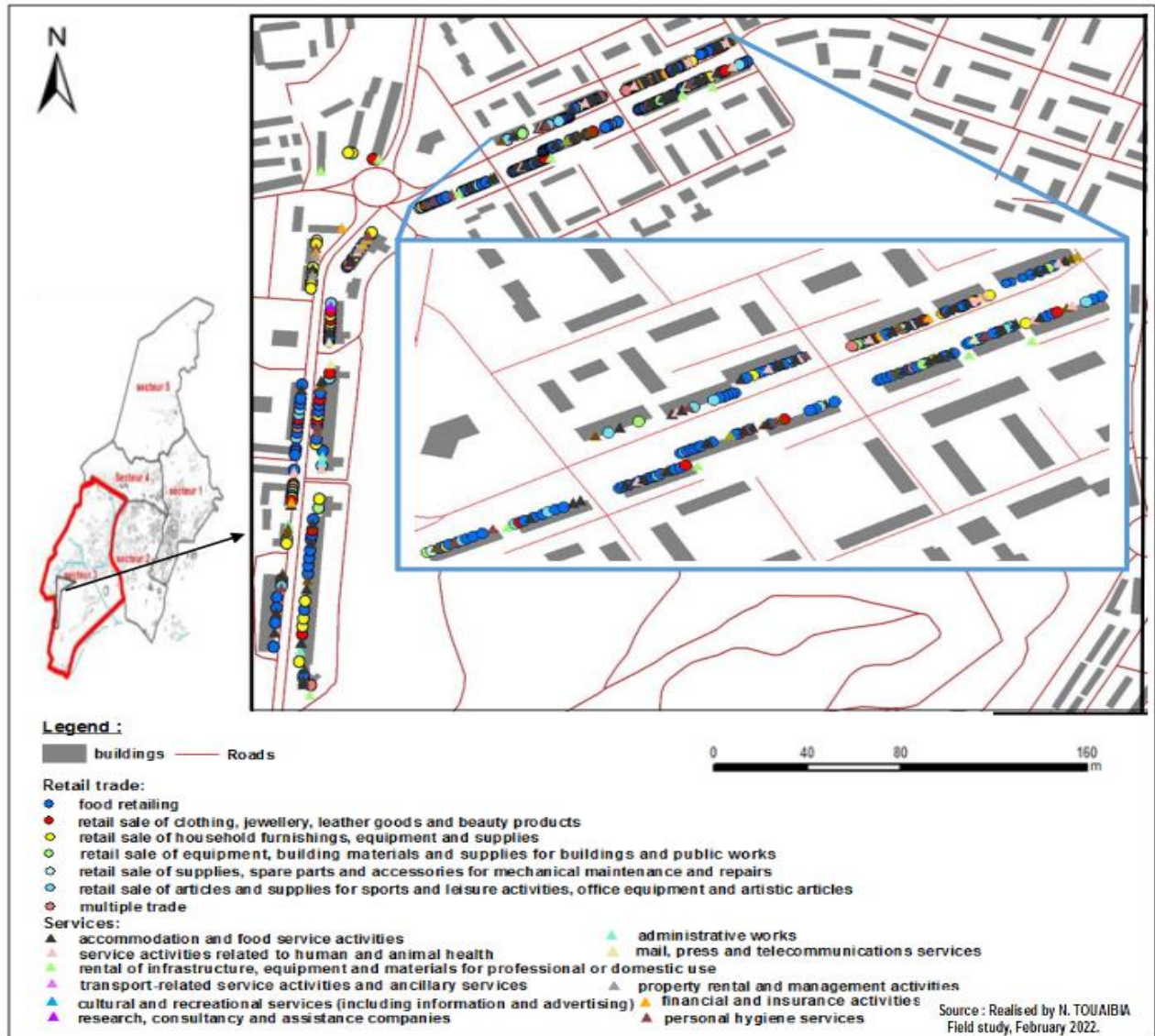


Figure 2: The distribution of commercial establishments in sector n°3.

Commercial Attractivity:

The classification of shops according to their types: food (food shops, supermarkets) and non-food (clothing shops, leather goods, and beauty products) allows us to know the commercial attractivity in each space of our study between the center and the periphery, which is calculated as follows:

Attractivity commerciale indice = Number of non-food shops /Number of food shops

Table 1: Commercial attractiveness.

	City-center	Periphery
Non-food activities	605	27
Food activities	11	124
Attractivity	55	0.22
	Very strong	Very low

Source : N. TOUAIBIA, Decembre 2021.

The attractiveness of the town center is very strong, as the commercial offer of non-food activities such as clothing, leather goods and beauty products is greater than that of food. As a result, this locality plays an active and attractive role in the region through its specialization in certain retail activities, serving a wide choice and creating a strong area of influence in this particular trade. On the other hand, in the outskirts, the commercial attractiveness is very low, where the number of food businesses, including food shops and supermarkets, exceeds the number of non-food businesses. This indicates that this area is fairly diversified, specializing in the food trade and meeting only a limited proportion of the needs and expectations of residents and customers.

To this end, we are more in the process of refining commercial spaces, we are still involved in ground floor retailing but with a type of specialized retailing, that makes the center more selective than the periphery in terms of retail occupancy. Based on the spatial analysis of commercial distribution in the city of Annaba (Figure 1 and 2) and the questionnaire carried out, we were able to reveal the causes which led to the selectivity of these two areas, results which can be broken down into three major components:

3.1. Residential geography:

The geography of retail trade and services in the city of Annaba owes much to the transformation of residential occupation. A city center that is losing its inhabitants, where half of the old dwellings have changed use to functions that are not habitable, but commercialized. Major changes in the commercial structure are redefining the status of the town center [22], as it is a space that has been left behind due to the transfer of the majority of residents to the outskirts of the town to settle there, escaping the nuisances (air pollution, noise pollution, etc.). These became very expensive location in which they sold or rented out by their owners to boost their profits. We found that 54% properties are owned privately (original owners or local buyers), while 46% are rented, with rents ranging from 100,000 to 600,000 DZ/month. State ownership is absent on the principle of encouraging private initiative in all areas.

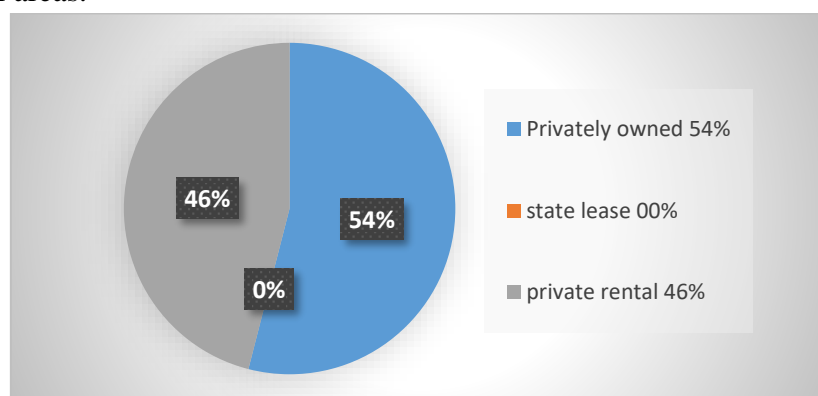


Figure 3: Breakdown of the survey sample according to the legal nature of the premises.
Source: N. TOUAIBIA, December 2021.

These dwellings subsequently become very expensive, which is why this area is shaped by a massive concentration and commercial specialization dedicated mainly to clothing and catering, businesses that have a high turnover and can bear the cost of rent. In addition, these

shops exert strong externalities on each other, where the concentration of a similar type of shop already helps to start up a neighboring shop. This once again explains the phenomenon of specialization, which helps to make the area more attractive.

This situation has forced some low-income businesses to follow the migrating population from the center to the periphery. Peripheral areas are characterized by new residential centers, which Algerian public urban planning policies have set aside for mixed use in the ground floors for basic necessities, these stores are intended for commercial and professional use that are put up for sale at public auction. The latter created a concentration of trade in these areas. Retailers specialize in foodstuffs and other similar businesses, depending on the requirements of the environment: customers and rents that vary between 20,000 and 150,000 DZ/month (depending on the location and surface area of the store), where retailers work much more with a resident clientele because of their proximity, and a transient clientele because of their accessibility. In addition to its primary function of supplying the local population by improving their wellbeing, this type of retailing also has a positive externality that is seen as a means of reactivating social ties, a social dimension of "living together" at local level.

Small shops are changing rather than declining [23], with 40% of those surveyed confirming that their type of shop is only suited to the outskirts. Testimony from more than 17% of merchants that we are changing location from the center to the outskirts in search of commercial integration, like the grocery shop that tried to occupy the best places in the town center [24]. Alternatively, the opposite from the outskirts to the city center, the example of a dentist, a fast food restaurant, a clothing store... Because it is necessary to adapt to demand and the location of that demand in order to keep up with it [25], consumers are not just «pushers of trolleys» [26], but also "effective actors" who set the commercial process in motion.

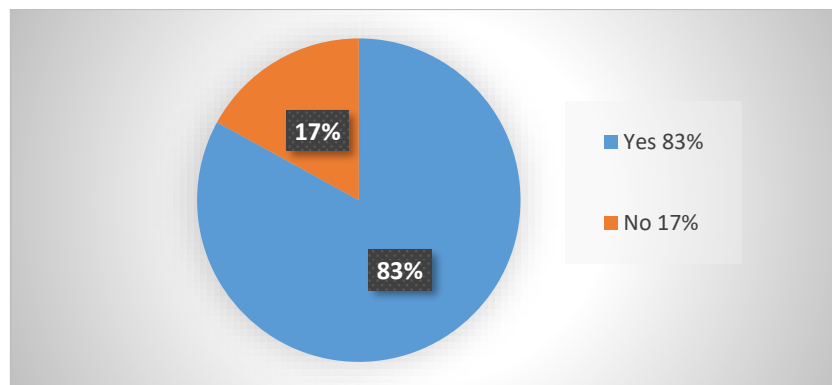


Figure 4: Distribution of the survey sample compared to whether it was the initial location of the exercise of this trade/service.

Source: N. TOUAIBIA, December 2021.

3.2. The conditions of mobility

The retailers surveyed agree that shop accessibility is a key issue, accounting for 50% of sales. It consider as a major indicator of the selectivity of these two areas (Figure 5), by type of store, and influences consumer practices, including:



Figure 5: The two frames of the city center "A", and the periphery "B".

Source: Made by N. TOUAIBIA, Google Maps processing.

-The town center, with its star-shaped layout, is mainly accessible to pedestrians. Classically, this is linked to the concentration of its spaces marked by commercial urban planning operations in a context of sustainable development, including the courting of pedestrian-only sectors [27] and the creation of shopping arcades in the city center with its striking architectural styles [28], carried out by developers but supported by the public authorities [29]. Finally, the results are not negligible, since there is a specialization in a particular trade, with huge shopping streets occupied by personal goods (clothes, shoes, fabrics, etc.), home furnishings (interior decoration) and restaurants. A strong reason for the fact that these types of shops impose pedestrian consumers with 67% by the shopping effect, rather than car shoppers who suffer from accessibility problems and a lack of parking spaces.

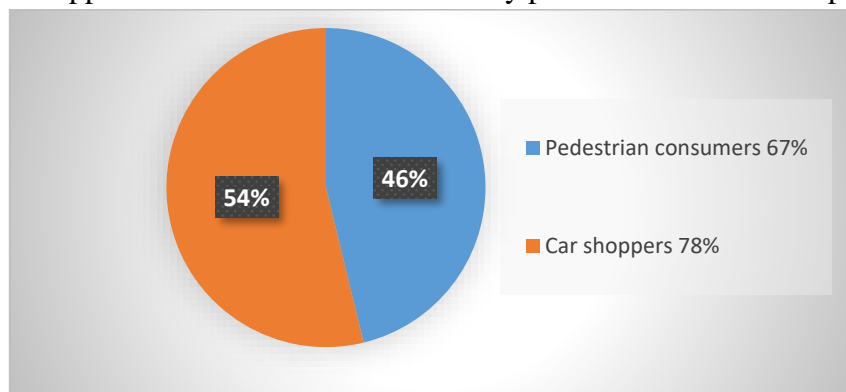


Figure 6: Distribution of the survey sample in relation to consumers' mode of attendance.

Source: N. TOUAIBIA, December 2021.

-The periphery, with their linear layout designed for motorists, occupied by a trade oriented towards food and bulky and household goods, which requires the use of the car with 78%, due to the fact that in the outskirts shopping is heavier and more cumbersome, given that the mobility linked to shopping and urban trade is part of a circular relationship. At the same time 44% respondents from the suburbs strongly confirmed that the existence of accessibility and the availability of parking areas motivated their choice of location and much more so it was the reason why they chose their type of retail.

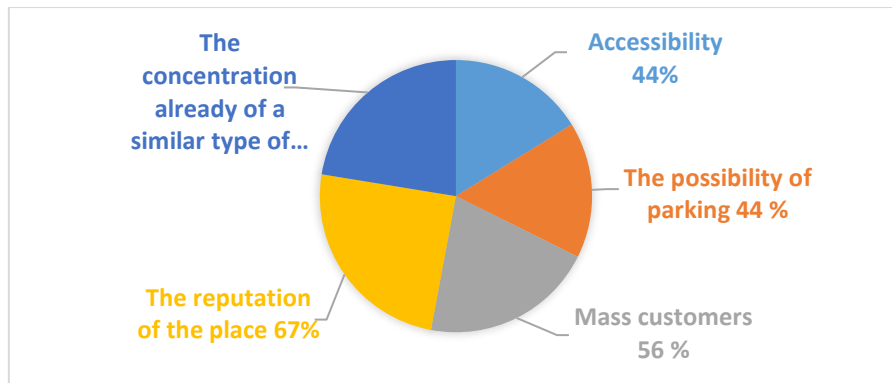


Figure 7: Distribution of the survey sample according to the advantages, which motivated the choice of location.

Source: N. TOUAIBIA, December 2021.

3.3. Consumer practices

The importance of a place's centrality is influencing not only by the concentrations observed, but also by the types of activity that the place brings together, which mean the functions that are carrying out there. The aim is to assess the functional centrality of a location by considering the relationship between commercial and functional centralities, which complement each other significantly.

Regardless the center brings together shops for an average clientele with densities, which are close to the poor profile to each activity; they are be marked by a broad diversification of the commercial offer. This is why, Consumers go to the town center because they are sure of getting their products in general and workers with 67% and students segment in particular with 56% where they benefit from the reduced time and transport costs associated with the proximity of these outlets to their functional locations. In other word, they prefer shopping, eating, strolling... in the city center rather than commuting to and from work.

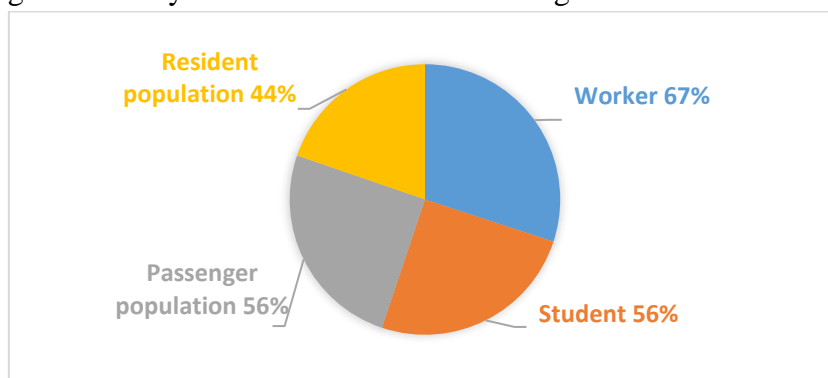


Figure 8: Distribution of the survey sample according to customer group.

Source: N. TOUAIBIA, December 2021.

On the other hand, another segment of consumers sees the town center as a meeting place for family and friends where they share common habits and behaviors according to the desire of residents who are mobile on a daily basis, while maintaining their social and economic links with the area they live in. They consider it as the most community space and perfectly relaxed place, especially if these were open-air spaces, as in the case of the coffees shops

located on a large public space, the square in Cours of the Révolution (Figure 9). This is why centrality is also a symbol, a reflection on the centrality value and the symbolic reference felt by the inhabitants of this city [30].



Figure 9: The Cours of the Révolution, relaxed place.

Source: N. TOUAIBIA, February 2022.

During the day, the flow of shoppers is dividing between the center and the periphery, but in the evening, the opposite happens. The first destination for the majority of shoppers (for the majority of customers, especially for the resident population with 44%, and passengers with 56%) is the outskirts where they find what they want until midnight (mini-markets, tobacconists, fast food, outlets, etc.). The center is "closed" at around 7pm (Figure 10, A) due to the most customers go to the outskirts rather than the city center (Figure 10, B and C).



Figure 10: Downtown (A) vs. Periphery (B, C) at night.

Source: N. TOUAIBIA, February 2022.

Analysis by the SWOT method:

To understand the logic of retail commercial location between the center and the periphery, we must summarize what we have previously reported. The analysis will focus on the survey carried out among traders composed of several sections including criteria such: geographical location and infrastructure, nature and dynamism of the socio-economic fabric, institutional factors and State action will make it possible to draw up an internal external diagnosis of the Strengths, Weaknesses, Opportunities, and Threats of the space studied. SWOT is a means of decision support through a strategic analysis, which will allow you to have an idea of the

current state of the space and subsequently create a more effective and efficient action plan for future commercial occupation.

Table 2: SWOT analysis of the space studied.

Strengths	Weaknesses
<ul style="list-style-type: none"> -The transformation of the residential occupation of the city center towards the commercial function, which, through its road network, imposes pedestrian commerce. -The urban sprawl of the city by the new residential centers has weighed on the necessary concentration of trade. -The rent price, which is appropriate with the type of businesses, which contributes to their locations and makes the spaces selective. -The concentration of a similar type of business already helps to start a neighboring business. Thus, the good reputation obtained (type of business, availability and access); the fact that it is a lively and dynamic area of activity encourages traders to locate themselves and frequented customers. -Mass customers depending on the type of business and the space frequented - The commercial and functional centrality that complements each other significantly at the city center level during the morning period. - the peripheral attendance of consumers in the evening where they find their purchasing desires and especially catering until late hours -The existence of accessibility and the availability of parking areas motivated the choice of location on the outskirts result of an automobile trade, and much more, it is the reason for the choice of the type of commerce. 	<ul style="list-style-type: none"> -The saturation of central space and lack of land base. -The increase in rent costs, especially in the city center. -Insufficient store space, especially in the city center -Frequency of the central space only during the morning period. -Attendance in the peripheral area is low comparing to the city center during the morning period. -The lack of parking and accessibility by car, especially in the city center. -The need for development, management, maintenance, lighting...etc. -Visual and noise pollution.
Opportunities	Threats
<ul style="list-style-type: none"> -Increase pedestrian traffic in shopping 	<ul style="list-style-type: none"> -The central space is more in demand and

<p>streets, especially in city centers where the old and historic architectural landscape.</p> <ul style="list-style-type: none"> -The public/private or private initiative through retail development projects, also for the extension of this activity at the municipal level, which requires new attractive commercial zones to relieve somehow the city center of Annaba. -Strategic partnership through collaboration with brands or organizations according to development projects which can establish the attractivity on the international market. -Anticipating future market trends through eco-friendly and sustainable options, incorporating sustainable options such as waste reduction strategies and green building materials to restore the city's urban landscape 	<p>more frequented compared to the periphery, which makes it more attractive and advantageous, which will subsequently create an imbalance between the two spaces</p> <ul style="list-style-type: none"> - Informal commerce on the sidewalks and next to premises destroys the image of the place and the city in general. - The lack of security especially in the city center. -The competition between peripheral commerce and city center commerce.
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To refining retail space:

The approach, which uses spatial analysis methods, based on the relationship between the type of retailing and the ability to pay a given level of rent, leads to concentric zoning according to the different types of retailing between the center and the periphery. Confirming the observations made by Garner and Scott in the 1970s on the retail distribution model incorporating land rents. The land values responsible for the city's current retail structure are higher in the center and lower on the outskirts. This has favored a logic of commercial specialization that follows a hierarchical logic in the organization of commercial space. This hypothesis was supporting again by the observations of Berry (1970). This approach was inspiring by methods such as the creation of specialized centrality zones, which free themselves from the constraints of the original grid and provide a framework for commercial centrality on a town-wide scale, where the retail dynamism of the town center is basing on distribution that complements the periphery. As for commercial services, they are more in competition for occupancy between the center and the outskirts, with certain activities seeking to be as close to the center as possible in order to benefit from its social and functional advantages.

Between center and periphery complementarity or competition [30]. We can point out that the city center and the outskirts nevertheless each retain specific advantages linked to purchases determined by the commerce themselves which meet the requirements of each area that has built up its own reputation (in terms of the type of retail outlet, availability and above all access) which has helped to reorganize consumer purchasing practices [31]. The result is a downtown retail commercial structure has become more refined with shopping effects, while consumer behavior on the periphery is oriented towards grocery or bulky equipment.

These are all factors that reflect the way of life that refers to certain phenomena linked to the current evolution of urban society for a cultural shift in the geography of consumption [32]. The concept of consumption is currently undergoing a process of renewal especially

with the rise of a new form of retailing that we cannot ignore it, which is 'E-commerce', a concrete shift from physical to digital commerce. With the Internet, this trend is undergoing major development with new approaches and new uses to meet huge commercial demand, especially during the health crisis that has hit the world the "COVID-19 pandemic" [33] leading consumers to make greater use of online shopping.

4. Conclusion

Based on our observations and field surveys, these analyses consolidate our initial observations, since in Annaba we found a hierarchical logic in the distribution of the commercial offer, combined with a logic of specialization. Annaba's commercial space is composed around a hyper-center made up of very dense, more or less diversified centers (mainly clothing and catering); all around are less dense ring roads, dominated by personal and household goods. Finally, all of these ring roads form part of a composition in which the commercial offer is almost continuous, overhung by local food retailing.

In this sense, what guided the selectivity and the refinement of the commercial apparatus in this city: On the one hand, socio-residential changes, consequently leading to a characteristic distribution of decreasing property values from the center to the periphery, the latter affecting the type of activity and the choice of location for retail and services. On the other hand, it is above all the road that has favored the organization of the commercial space according to two essential parameters; speed and time where the consumer orientate his consumption practices according to these last two. Many evidence that we need to go a step further and look at the future of the city in terms of commercial occupation.

This does not always enable the right actions to be taking except with a global view of the area that can be affecting by planning based primarily on a vision shared between elected representatives and consultation with the various economic actors. Especially taking account of consumer behavior and the links between trade and new consumer habit in view of its power to reorganize the location of retail outlets. Before moving on to the '*operational*' stage, it is imperative to include a key actor that of the retailer, the majority of whom expressed dissatisfaction with elected representatives who do not respond adequately to their concerns. These concerns mainly revolved around the need to develop outdoor spaces and ensure urban safety for the smooth running of their activities, insisting on the development of commercial activity at municipal level, which requires new attractive commercial zones to relieve some of the pressure on Annaba town center. These recommendations could therefore be the key to success, providing a useful tool for assessing and improving the regulations and policies put in place to better plan the city for and with commerce, in order to ensure coherence between commercial development and the restructuring of the urban fabric.

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