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FACTORS INFLUENCING THE ATTRACTIVENESS OF SHOPPING CENTRES: THE CASE STUDY CONSTANTINE, ALGERIA

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Abstract:
This study aims to identify the factors influencing shopping centre attractiveness and understand how each shopping centre possesses unique features that attract consumers for different reasons. Data was collected from 240 consumers, with 60 respondents in each of the four shopping centres in Constantine. The results were processed using factor analysis to extract the key elements considered most relevant by respondents. Seven key factors of attractiveness were identified: Satisfaction of Needs and Quality, Location and Comfort, Commercial Offering, Fashion and Food, Household Items, Entertainment, and Accessibility and Electronic Services. Each factor was then analysed using a plot graph and a map to establish connections with the four shopping centres. The results show that the four shopping centres are not equally attractive. Ritej Mall and Yes Mall stand out as the most attractive, whereas Sans Visa is considered a dead mall. Satisfaction with Needs and Quality factor emerges as the most important factor across all four shopping centres. Additionally, each shopping centre has specific factors such as Household Items, Entertainment, Accessibility, and Electronic Services. Identifying these attractiveness factors can help shopping centre managers develop strategies for future urban planning to attract more shoppers.

Keywords: Shopping centres, Factors of attractiveness, Consumers, Urban planning, Constantine.

1. Introduction

Since the first shopping centres opened, this commercial format has assumed a prominent role in the commercial landscape across the planet, as well as being a key driver of local economic development (Morandi, 2011). Shopping centres serve as major sources of employment, attracting a diverse range of businesses from retail stores and restaurants to entertainment venues and service provides creating jobs both directly and indirectly through industries like construction, maintenance and logistics (Kenney et al., 2019). Additionally, shopping centres generate significant tax revenues that support vital public services, such as education and infrastructure, thereby enhancing the broader economic environment (Mboup, 2017). Their presence often leads to higher property values, benefiting homeowners, developers, and municipalities by stimulating economic stability and encouraging further investment in local

real estate (Koengkan et al., 2023). Beyond their economic impact, these centres function as social and cultural hubs, hosting events and fostering community cohesion, which enhances residents' quality of life (Wei et al., 2024). Despite its rapid success evident, for instance, in the market share it quickly achieved – not all shopping centres possess the same ability to attract consumers (Tang and Tang, 2024). The evaluation of the attractiveness of shopping centres is crucial for business strategy and urban planning, especially in the context of rapidly developing cities and new towns (Mao et al., 2019), and further plays a pivotal role in attracting residents, tourists, and investments. Moreover, more pressing challenges exist at present, such as issues of sustainability considering that access to shopping centres is predominantly achieved via private transport, with consequent impacts on traffic and noise pollution (Gatta et al., 2018).

Several studies have focused on explaining why some shopping centres are more attractive than others, in which the complexity of this task is highlighted (Cracolici and Nijkamp, 2009). Authors such as Kiriri (2019) applied confirmatory factor analysis (CFA) and structural equation modeling (SEM), like Ali (2012) that resorted to this latter method in his study. Other studies, such as Nambuge et al. (2020) applied a mix-method, in which the perception of respondents was an element considered as valid in their analysis. Although with a few exception – such as Ouafida (2021) most of the existent literature on shopping centres is focused on the Global North. In this study, we aim to contribute to address this gap, by analysing the attractiveness of shopping centres in the context of Algeria. Our study focuses on four distinct shopping centres located near each other in the new city of Ali Mendjeli in Constantine. The choice of Ali Mendjeli as the study area is motivated by its emerging commercial sector and rapid urbanization, which makes it an ideal case study for analysing the factors influencing the commercial attractiveness of shopping centres in a growing urban environment. Our aim is not only to identify the elements considered most attractive in shopping centres but also to understand how each of these centres possesses features that attract consumers for different reasons. Thus, in a context where competition among shopping centres is increasingly evident, the conclusions of this study may shed some light on how multiple shopping centres appear to coexist in relatively proximity to one another.

Methodologically, we conducted 240 questionnaires on consumers, applying 60 questionnaires in each of the four analysed shopping centres. The results are to be processed using SPSS, employing factor analysis to extract the factors identifying the elements considered most relevant by the respondents. The indicators grouped within each factor will subsequently be analysed through a plot graph, which will establish the connection with each of the shopping centres. This methodological approach stems from our argument that the coexistence of four shopping centres is not due to all four being equally attractive but rather is only possible because each shopping centre has a comparative advantage over the others. This advantage can be identified by linking the factors resulting from the factor analysis to each of the four shopping centres under study.

After this introduction, we will establish the theoretical framework revolving around the literature that debates the attractiveness and life cycle of shopping centres. In the third section, the methodology will be established; after which the results and discussion will be presented. Lastly, the fifth section is devoted to the conclusions.

2. Conceptual Framework: Shopping centres attractiveness

The attractiveness of shopping centres stems from their ability to attract and engage visitors, driven by various motivations (Barbara et al., 2018). The first is the economic aspect, which concerns shopping opportunities and the value consumers seek in their purchases (Elhajjar, 2023). The second is the emotional aspect, which focuses on creating an enjoyable experience that fosters positive feelings during the visit (Pullman and Gross, 2004). Ultimately, different

factors influence shopping centre attractiveness, shaped by consumer perceptions, preferences, and contextual expectations (Zanawani and Hashim, 2022).

Furthermore, the accessibility of shopping centres plays a significant role in their success.Can et al. (2016), argues that accessibility is a key factor contributing to the success of shopping centres. In addition to location, the shopping environment is a key competitive factor for centre attractiveness. Flacandji and Krey (2020), highlight that a well-maintained shopping environment enhances visual appeal and increases customer satisfaction. Other studies have also identified critical factors that influence shopping centre attractiveness such as Križan et al. (2018) who emphasized that location greatly impacts the attractiveness of shopping centres , while Ortegón-Cortázar and Royo-Vela (2017) found that the variety, cleanliness and safetly are crucial factors for enhancing a shopping centre's attractiveness. The commercial offering is another fundamental factor in all shopping centres. Upadhyaya (2017) supports the idea that promotions are key strategies for meeting and satisfying customer expectations. Similarly, Hui et al. (2016), note that shopping mall promotions, particularly sales and price reductions, encourage higher foot traffic. There are also various forms of entertainment that can attract shoppers to a shopping centre. Barbara et al. (2018) found that entertainment is a key factor in shopping centre attractiveness. Finally, infrastructure also plays a significant role. Dilek and Top (2013) argue that efficient transportation systems and well-designed parking facilities contribute to a shopping centre's overall attractiveness.

Despite its success as a retail format, shopping centres are not immune to failure, as literature on dead malls show us (Ferreira and Paiva, 2017). Since its inception in the north American context, much from the influence of Victor Gruen (Gruen and Smith, 1960), Shopping centres are closely linked to the evolution of consumer demands and the expansion of the urban areas in which they are situated (Stillerman and Salcedo, 2012). This relationship spans from their development phase (Kuruvilla and Ganguli, 2008), to their growth and maturity stages, characterized by increased foot traffic, stable retail operations, and high sales (Kiriri, 2019) Over time, however, the attractiveness of shopping centres may evolve. As Guimarães (2018), notes, shopping centres must undergo renovations, rebranding, or adjustments to their tenant mix to remain relevant, or they risk experiencing a gradual decline, influenced by both internal and external factors (Ferreira and Paiva, 2017).

3. Methodology

3.1. Case of Study and Data used

The study focuses on the city of Ali Mendjeli, an emerging hub for commercial and residential activities. Ali Mendjeli is located 15 kilometres southeast of Constantine, is a newly developed city within the Ain Smara and El Khroub municipalities.

In this study, four shopping centres were selected for the survey (Figure 1). These include El Ritedj (8747 sq.m of GLA), Sans Visa (1200 sq.m of GLA), Ritej Mall (20000 sq.m of GLA), and Yes Mall (15000 sq.m of GLA). These malls are situated within a 5 km radius of key urban areas of the city.

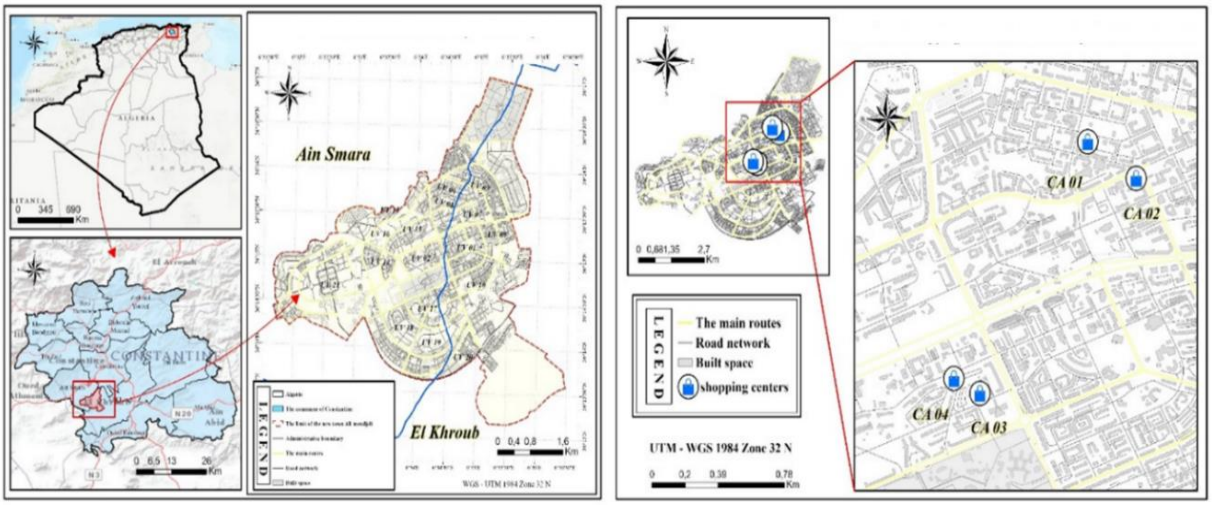

Figure.1. Location of the shopping centres: **CA01** – El Ritedj, **CA02** – Sans Visa, **CA03** – Ritej Mall, and **CA04** – Yes Mall.
Source: Authors (2024).

The selection of these shopping centres was based on their geographical proximity and diversity in terms of size, services, and consumer types. By studying these shopping centres, all located within the same urban context, the study seeks to minimize the influence of external variables, such as differences in accessibility or location. This approach enables a more focused evaluation of the factors driving commercial attractiveness. The comparison between these shopping centres offers a deeper understanding of the commercial dynamics at each site and their collective contribution to the city's overall commercial appeal. Additionally, the diversity of these retail precincts provides an opportunity to observe consumer behaviours across various groups, ensuring the collection of representative data for a comprehensive analysis of the factors influencing the attractiveness of urban commercial spaces.

Figure.2. Shopping centres in Constantine: (El Ritedj (top left), Sans Visa (top right), Ritej Mall (bottom left), Yes Mall (bottom left).
Source: Authors (2024).

A total of 240 questionnaires were applied to consumers, 60 in each of the four shopping centres. A descriptive analysis shows a imbalance in the gender distribution, with182

questionnaires on women (75.8%) and 58 on men (24.2%) (table 1). This disparity may be attributed to the higher frequency of women visiting shopping centres. Additionally, the timing and location of data collection may have influenced the gender composition of the respondents, as surveys were primarily conducted during daytime hours when women are more likely to visit shopping centres than men.

Table.1. Sample Description

Variable	Frequency	%
Gender		
Male	58	24,2
Female	182	75,8
Age		
18-25	102	42,5
26-40	77	32,1
41-59	45	18,8
>60	16	6,7
Education Level		
Primary	3	1,3
Middle school	25	10,4
High School	46	19,2
University	165	68,8
No Education	1	0,4
Occupation		
Student	91	37,9
Employed	75	31,3
Unemployed	62	25,8
Retired	12	5
Frequency of Visits to Shopping centres		
Once a week	12	5
Several times a week	42	17,5
Once a month	37	15,4
Several times a month	45	18,8
Occasionally	104	43,3

Source: Authors (2024)

Regarding age distribution, 42.5% of respondents were between 18 and 25 years old, 32.1% between 26 and 40, 18.8% between 41 and 59, and 6.7% were over 60. Professionally, 37.9% identified as students, 31.3% as employed, 25.8% as unemployed, and 5% as retired. As for the high number of students, it was expected that would occur, as the shopping centres Ritej Mall and Yes Mall are in close proximity to university facilities. In terms of the frequency of visits to shopping centres, only 5% of respondents visited weekly, 17.5% several times a week, 15.4% monthly, 18.8% several times a month, and 43.3% visited occasionally. Overall, Ritej Mall was the most preferred shopping centre, selected by 65% of respondents.

3.2. Methods

The questionnaires contain a total of 15 questions divided through three sections and were collected by the authors through face-to-face surveys conducted at different times of the day, across weekdays and weekends, between March 2024 and June 2024. The first section of the questionnaire deals with respondents' socio-demographic data, such as gender, age, level of

education, occupation and travel habits to shopping centres. The second section consists of questions concerning the main reasons for these visits, and the types of stores preferred in shopping centres. Respondents are also asked what factors influence their decision to choose one shopping centre over another. The third section presents questions on respondents' general perceptions of service quality and prices in shopping centres. This section also explores respondents' satisfaction needs in the various shopping centres. The responses will be used to understand the criteria influencing the attractiveness of shopping centres, and how these criteria vary according to consumer habits and preferences.

Factor analysis was performed to identify the key factors influencing the commercial attractiveness of shopping centres. This technique helps uncover the primary dimensions of attractiveness by grouping related variables that explain the underlying factors shaping consumer behaviour. Principal Component Analysis (PCA) was used as the extraction method, with Varimax rotation applied to achieve a clearer interpretation of the factors. PCA is a valuable tool for condensing and interpreting large sets of quantitative data (Guerrien, 2003). While previous studies have employed PCA to identify the determinants of shopping centres attractiveness, this study not only applies this method but also goes a step further by linking the PCA results to each individual shopping centre. We will enhance the factor analysis by evaluating the commercial attractiveness of each shopping centre through statistical charts and maps. This approach will visually highlight the various factors influencing the attractiveness of the shopping centres, facilitating a comparison of their performance across key attributes. Our analysis will assess the impact of each factor on the overall attractiveness of the shopping centres.

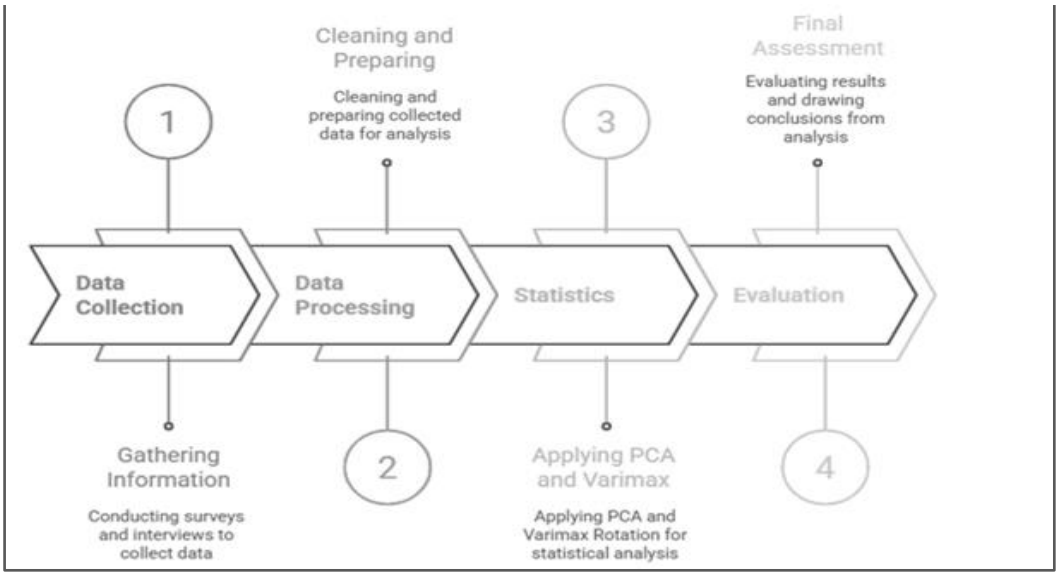

Figure.3. Evaluation Process
Source: Authors (2024)

4. Results and Discussion

The reliability of the research instrument was assessed using Cronbach's alpha coefficient, which examines the correlation between questionnaire variables. This index provides an overall measure of the internal consistency or reliability of the scale used. A Cronbach's alpha coefficient of 0.69 was obtained in this study, which exceeds the acceptable threshold of 0.60 according to Taber (2018) justifying satisfactory reliability for social sciences scientific research purposes.

The results presented in Table 2 indicate a correlation between the selected variables. The analysis of the correlations between the different variables highlights several key relationships

influencing the perception of a shopping centre. Consequently, we are encouraged to proceed with Principal Component Analysis (PCA) to further analyze the data and uncover the underlying factors influencing the attractiveness of shopping centres.

Table.2. Correlation matrix between selected variables

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Correlation	1	1,000	0,119	-0,318	0,071	0,085	-0,233	0,067	0,046	0,038	-0,191	0,070	0,086	0,033	0,044	-0,038	-0,037	-0,005	0,114	-0,073
	2	0,119	1,000	0,007	0,037	0,025	0,063	-0,015	-0,034	0,209	0,029	0,013	0,112	0,059	0,057	-0,087	0,183	0,172	0,014	0,093
	3	-0,318	0,007	1,000	-0,067	0,145	0,019	0,125	0,063	-0,026	0,142	0,121	0,114	0,059	0,204	0,213	0,095	0,089	0,035	-0,090
	4	0,071	0,037	-0,067	1,000	0,103	-0,009	0,093	-0,111	0,024	0,135	0,118	0,081	0,124	0,136	-0,161	0,128	0,155	0,145	0,107
	5	0,085	0,025	0,145	0,103	1,000	0,041	0,007	0,110	-0,039	-0,073	-0,010	0,103	0,122	0,116	-0,001	0,073	0,026	0,004	-0,055
	6	-0,233	0,063	0,019	-0,009	0,041	1,000	0,066	0,044	0,111	0,084	0,008	-0,078	0,155	0,082	0,021	0,267	0,096	0,042	0,187
	7	0,067	-0,015	0,125	0,093	0,007	0,066	1,000	-0,050	0,122	0,062	0,235	-0,209	0,114	0,204	-0,050	0,227	0,139	0,157	0,027
	8	0,046	-0,034	0,063	-0,111	0,110	0,044	-0,050	1,000	-0,055	0,057	-0,109	0,002	-0,046	0,074	0,230	0,023	0,136	-0,001	-0,039
	9	0,038	0,209	-0,026	0,024	-0,039	0,111	0,122	-0,055	1,000	0,092	0,224	-0,135	0,179	0,071	0,011	0,109	0,095	0,093	0,114
	10	-0,191	0,029	0,142	0,135	-0,073	0,084	0,062	0,057	0,092	1,000	0,073	-0,002	0,114	0,146	-0,076	0,339	0,266	0,235	0,234
	11	0,070	0,013	0,121	0,118	-0,010	0,008	0,235	-0,109	0,224	0,073	1,000	-0,171	0,114	0,145	0,041	0,148	0,206	0,142	0,078
	12	0,086	0,112	0,114	0,081	0,103	-0,078	-0,209	0,002	-0,135	-0,002	-0,171	1,000	0,001	0,002	-0,014	-0,001	-0,042	0,005	-0,068
	13	0,033	0,059	0,059	0,124	0,122	0,155	0,114	-0,046	0,179	0,114	0,114	0,001	1,000	0,380	0,034	0,354	0,202	0,369	0,192
	14	0,044	0,057	0,204	0,136	0,116	0,082	0,204	0,074	0,071	0,146	0,145	0,002	0,380	1,000	0,130	0,394	0,466	0,518	0,136
	15	-0,038	-0,087	0,213	-0,161	-0,001	0,021	-0,050	0,230	0,011	-0,076	0,041	-0,014	0,034	0,130	1,000	-0,156	0,064	-0,025	0,086
	16	-0,037	0,183	0,095	0,128	0,073	0,267	0,227	0,023	0,109	0,339	0,148	-0,001	0,354	0,394	-0,156	1,000	0,559	0,355	0,377
	17	-0,005	0,172	0,089	0,155	0,026	0,096	0,139	0,136	0,095	0,266	0,206	-0,042	0,202	0,466	0,064	0,559	1,000	0,470	0,341
	18	0,114	0,014	0,035	0,145	0,004	0,042	0,157	-0,001	0,093	0,235	0,142	0,005	0,369	0,518	-0,025	0,355	0,470	1,000	0,197
	19	-0,073	0,093	-0,090	0,107	-0,055	0,187	0,027	-0,039	0,114	0,234	0,078	-0,068	0,192	0,136	0,086	0,377	0,341	0,197	1,000

Source: Authors (2024)

The suitability of data measure using the KMO (Kaiser-Meyer-Olkin) test, presented in (Table 2), show a value of 0.67, which is considered an acceptable threshold. According to Kaiser and Rice (1974), values between 0.6 and 0.7 suggest that the sample is suitable for factor analysis, indicating that there are reasonable correlations among the indicators. Furthermore, the Bartlett's test of sphericity yielded a significant result ($p < 0.05$), which leads to the rejection of the null hypothesis, which posits that the indicators are uncorrelated. This finding confirms the presence of significant correlations among the indicators, thereby justifying the use of factor analysis. Consequently, the application of the principal component analysis (PCA) method is considered appropriate for this study.

Table.3. KMO index and Bartlett's test

KMO index and Bartlett's test		
Kaiser-Meyer-Olkin index for measuring sampling quality		0,670
Bartlett's test of sphericity	Approximate chi-square	756,500
	Df	171
	Significance	0,000

Source: Authors (2024)

The application of principal component analysis resulted in seven factors with eigenvalue above "1" that, collectively, explain approximately 60% of the variation in the data from the surveys (Table 3). The first factor has an explanatory power slightly greater than 1/6 of the total variation. The application of varimax rotation produces a limited effect, although it increases the percentage of variance in factors four to seven.

To decrease dimensionality while keeping important data from the dataset, Principal Component Analysis (PCA) was used. Table 4 summarizes the results of the analysis of 19 variables, which were grouped into seven different factors. Each main factor's initial eigenvalues, cumulative variance, and percentage of variation explained are shown in this table. Using the Kaiser criterion, we chose the seven factors with eigenvalues larger than 1.0 to guarantee the best possible balance between data simplification and information preservation (Table 4). Together, these seven factors account for 59.87% of the variation, demonstrating a significant amount of information preservation and successful complexity reduction. The first

factors accounts for the largest portion of the variation (17.60%), with the subsequent factors contributing progressively less, and the seventh factor still. The first factor accounts for 17.60% of the variation, whereas the next factors each contribute progressively less, with the seventh factor still contributing 5.61%. In order to improve interpretability and ensure that variance is distributed more uniformly among factors, the rotation of squared loadings further improved factor distribution. The results are more insightful for further study because of this improved structure, which enables each factor to reflect a unique and significant combination of indications.

Table.4. Explained total variance (Extraction method: Principal component analysis - PCA)

Component	Initial eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	**% of variance**	**Cumulative %**	**Total**	**% of variance**	**Cumulative %**	**Total**	**% of variance**	**Cumulative %**
1	3,344	17,601	17,601	3,344	17,601	17,601	2,999	15,783	15,783
2	1,628	8,569	26,170	1,628	8,569	26,170	1,556	8,191	23,975
3	1,506	7,929	34,098	1,506	7,929	34,098	1,439	7,572	31,547
4	1,404	7,389	41,488	1,404	7,389	41,488	1,429	7,523	39,069
5	1,246	6,559	48,047	1,246	6,559	48,047	1,382	7,271	46,340
6	1,180	6,210	54,257	1,180	6,210	54,257	1,290	6,790	53,131
7	1,066	5,613	59,869	1,066	5,613	59,869	1,280	6,739	59,869

Source: Authors (2024)

The identified factors influencing shopping centre attractiveness are: (i) Satisfaction of Needs and Quality (4 indicators); (ii), Location and Comfort (3 indicators); (iii), Commercial Offering (3 indicators); (iv), Fashion and Food (2 indicators); (v), Household Items (1 indicator); (vi), Entertainment (1 indicator); and (vii) Accessibility and Electronic Services (2 indicators) as the Table 5 presented.

Table.5. Rotated component matrix

	Rotated component matrix								
ID	**Label of component**	**Indicator**	**Component (Factor)**						
			1	**2**	**3**	**4**	**5**	**6**	**7**
1	Satisfaction of Needs and Quality	Meets needs of its visitors	0,71						
		Modernity	0,69						
		Convenience	0,77						
		Quality	0,75						
2	Location and Comfort	Variety of stores and services		0,64					
		Cleanliness and safety		0,65					
		Proximity to residential areas and workplaces		-0,6					
3	Commercial Offering	Beauty and cosmetics			-0,5				
		Discounts and promotions			0,62				
		Prices			0,77				
4	Fashion and Food	Fashion and clothing stores				-0,7			

		Food				0,83			
5	Household Items	Household items and decorations						0,78	
6	Entertainment	Entertainment options					0,8		
7	Accessibility and Electronic Services	Electronics and technology stores							0,82
		Accessibility and parking facilities							0,62

Source: (After outputs extracted by the authors from the SPSS, 2024)

As we can see in the rotated component matrix, the initial three factors are strongly connected with specific characteristics of shopping centres and their commercial environment. The remaining four factors are associated with specific types of stores existing in shopping centres. The most relevant factor is the one named 'Satisfaction of Needs and Quality'. This factor emerges as a key determinant of commercial attractiveness. The rotated component matrix (Table 5) reveals a strong correlation between four, namely: the ability of shopping centres to meet the needs of their visitors, their modernity, the quality of services provided, and their convenience. These interconnected dimensions highlight the importance of a commercial environment that combines efficiency and satisfaction, ensuring a positive and appealing experience for consumers. This factor is in line with what Flacandji and Krey (2020) have identified in their study, showing that a good shopping centre commercial environment is key for its success. The second most relevant factor is 'Location and comfort' which also play a significant role in consumers' choices. This means that the shoppers prefer a variety of stores, safety, and proximity in the dimension as a factor of attractiveness that attracts them to the shopping centres. This observation is consistent with the findings of Križan et al.(2018) and Ortegón-Cortázar and Royo-Vela (2017) who highlighted the importance of location, store variety, cleanliness, and security in enhancing shopping centre appeal. Commercial offering is another prevalent factor in all shopping centres which was also the case in research carried out by Upadhyaya (2017). The indicators' promotions and prices are highly correlated, underlining their importance in the choice of shopping centres consumers. Indeed, these indicators directly influence consumers' decision to visit a shopping centre, in a similar finding stated by Hui et al.(2016). As referred above, the remaining four factors have a link with specific retail typologies. Of these four, the Fashion and Food factor stands out as a primary driver of shopping centre visits. For most visitors, purchasing clothing and enjoying dining options are the main reasons for visiting these centres. This underlines the significant role that fashion and food offerings play in attracting and retaining shoppers.

The fifth factor relates to household items and decoration, the sixth to entertainment options, and the seventh to electronic and technology services and accessibility and parking facilities – similar to the finding of Dilek and Top (2013). These four factors illustrate that, in the case of some shopping centres, their attractiveness stems from the presence of specific commercial spaces or accessibility issues, which by themselves are sufficiently capable of attracting customers. This leads us to conclude that, in the case of the four shopping centres studied, their attractiveness may vary, as consumers are drawn by different factors. The following figure is representative of this. The way each factor holds distinct values (on a Likert scale according to the questionnaire) for each shopping centre allows us to assess which factors are most relevant for each one.

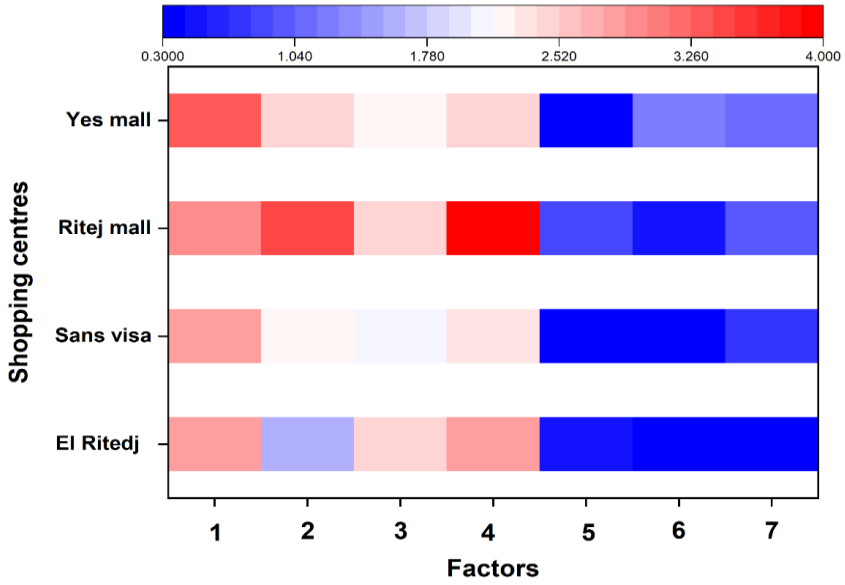

Figure.4. Evaluation of the shopping centres attractiveness

Based on Figure 4 the shopping centre El Ritedj stands out for having its attractiveness most strongly linked to two key factors: Satisfaction of Needs and Quality (factor 1) and Fashion and Food (Factor 4). These factors play a significant role in its appeal, highlighting the importance of meeting consumer expectations and offering a diverse range of trendy and culinary options. On the other hand, the factors Entertainment (Factor 6) and Accessibility and Electronic Services (factor 7) show the least contribution to its overall attractiveness, suggesting areas where improvements could enhance the centre's appeal. For the Sans Visa shopping centre, the factor Satisfaction of Needs and Quality (factor 1) is the most strongly linked to its attractiveness, underscoring its ability to meet customer expectations effectively. In contrast, the factor Household Items (factor 5) contributes the least, primarily due to the centre's lack of stores offering decorative items. This gap in the retail mix presents an opportunity for development to better meet the diverse needs of its visitors. The Ritaj Mall shows its strongest attractiveness connection to the factor Fashion and Food (factor 4), which significantly contributes to its appeal. Conversely, Entertainment (factor 6) is the least contributing factor, indicating a potential area for growth. Finally, for Yes Mall, the factor Satisfaction of Needs and Quality (factor 1) is again the most strongly linked to its attractiveness, highlighting its ability to meet customer demands effectively. However, the factor Household Items (factor 5) also contributes the least, similar to the trend observed in other centres. Overall, the factor Satisfaction of Needs and Quality (factor 1) emerges as the most important factor across all four shopping centres, reinforcing its critical role in shaping their attractiveness. Meanwhile, the last factors such as Household Items (factor 5), Entertainment (factor 6), Accessibility and Electronic Services (factor 7) hold greater significance for specific shopping centres Ritej Mall, Yes Mall, and again Yes Mall, respectively.

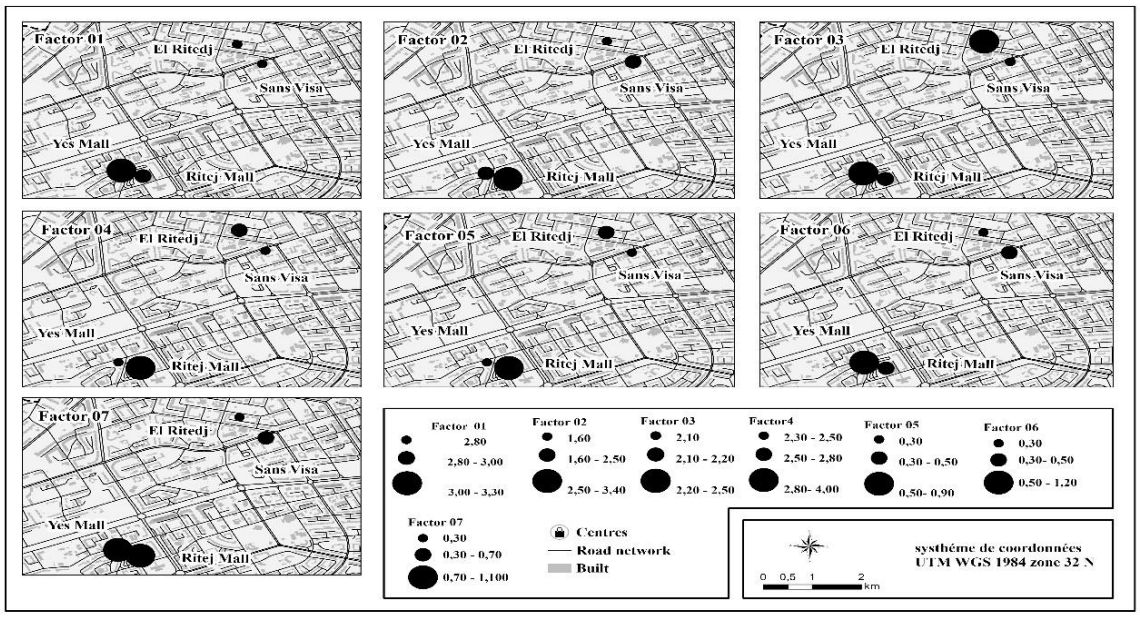

Figure.5. Factors of shopping centres.
Source: Authors (2024).

The cartographic analysis revealed significant differences in the commercial attractiveness of shopping centres according to the factors studied. The existence of multiple sub-maps makes it possible to assess the impact of these factors on each shopping centre and to identify the most influential areas in urban dynamics. Figure (5) shows Factor 01 (Satisfaction needs and Quality) and Factor 04 (Fashion and food) show high values concentrated around Yes Mall and Ritej Mall, indicating that these factors have a high impact on commercial attractiveness. In contrast, the values of Factor 02 (Location and Comfort) and Factor 03 (Commercial Offering) are more moderate, with a more balanced distribution among different centres, reflecting an equal contribution. On the other hand, the values of Factor 05(Household Items), Factor 06 (Entertainment), and Factor 07 (Accessibility and Electronic services) are low, indicating a lower impact on the attractiveness of shopping centres. The figure (5) seems to illustrate the impact of different factors on the economic attractiveness of the shopping centres. Yes Mall and Ritej Mall appear to be the most attractive centres, while the influence of Sans Visa and El Ritedj varies according to the factors involved.

5. Conclusion

This study aimed to identify the factors contributing to the attractiveness of shopping centres, using four shopping centres in Constantine as a case study. Through a quantitative approach, we analyzed how different characteristics influence shopper preferences and determined the key factors influencing shopping centres attractiveness. The results were obtained through a employed factor analysis, revealing seven main factors: Satisfaction of Needs and Quality, Location and Comfort, Commercial Offering, Fashion and Food, Household Items, Entertainment, and Accessibility and Electronic Services. Our results are in good agreement to finding of (Flacandji and Krey, 2020; Križan et al.,2018; Ortegón-Cortázar and Royo-Vela, 2017; Upadhyaya, 2017 ; Hui et al.,2016; Dilek and Top, 2013).

The results showed that the factor Satisfaction of Needs and Quality emerged as the most significant across all shopping centres, while other factors, such as Household Items, Entertainment, and Accessibility and Electronic Services, played a more specific role in shopping centres attractiveness in individual cases. Furthermore, the study provided specific factors for each shopping centre. For instance, El Ritedj shopping centre stands out for

Satisfaction of Needs and Quality and Fashion and Food as its main attractiveness factors. For Sans Visa and Yes Mall share Satisfaction of Needs and Quality as their key factor, while Ritej Mall is primary influrnced by Fashion and Food factor.

Overall, the study revealed that the four shopping centres do not exhibit the same level of attractiveness. Ritej Mall and Yes Mall stand out as the most attractive, while Sans Visa appears to be at risk of closure. These findings can serve as a strategic tool for urbain planning. City planners and policymakers should consider these factors when designing commercial spaces, ensuring that shopping centres align with consumer expectations and contribute to the overall vitality of urban areas. While this study provides valuable insights, further research is needed to validate our findings in other urban contexts. Expanding this analysis to other cities in Algeria would allow for a broader understanding of shopping centre attractiveness and its implications for urban commercial planning. To address these limitations, future studies could further investigate these factors to strengthen and refine the conclusions drawn from this research.

Supplementary Materials: Not applicable

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