The Modern Shopping Centers of Kharkiv in Visitors’ Perception

S A Smolenska and A S Borysenko

Department of Architectural Design, Kharkiv National University of Civil Engineering and Architecture, Sumskaya str. 40, Kharkiv, 61002 Ukraine

argeciy@gmail.com

Abstract. Article is dedicated to revealing the qualitative characteristics of environment of five modern shopping centers of Kharkiv. Analysis is based on user reviews published on Google Maps. Review texts underwent semantic analysis with division of results under 4 qualitative categories, namely “commercial attractiveness”, “comfortability”, “energization of activity”, “aesthetic articulation of the place”. Results confirm the existence of three patterns of preferences’ distribution that correspond to three types of shopping mall by structure (by B. Maitland), these being introverted, integrated and specialized or thematic type. The figures were then compared with results from similar analysis of foreign centers. Three shopping centers of Kharkiv received positive reviews in numbers comparable with foreign ones, all of the prevalent introverted type, signalling that competition between shopping complexes in Kharkiv is not high enough for their owners to seek new spatial concepts for retail objects. Meanwhile, developed retail markets of USA and Western Europe indicate the diversification of type and spatial characteristics of shopping centers. An adoption of shopping center organization methods from western practice and its belated spread in Ukraine lead to lag in new types’ introduction. Particularly an idea of thematic narrative concept is a promising but underused resource in Kharkiv’s situation.

1. Introduction
The article interprets shopping center as a building complex of commercial and public use, united by common pedestrian space (further referred as a “connective recreational space”) into a singular complex system of large urban scale and influence that plays a significant part in citizens’ preferences and way of life.

Current stage of shopping centers’ development in USA and Western Europe is characterized by decreased visitors’ interest to formerly popular objects. It is caused by a number of problems: the development of electronic commerce, retail real estate market’s oversaturation by similar building types, the changes in consumers’ preferences etc. This leads to researchers and developers seeking new design concepts, including an idea of stimulating the social and recreational use of shopping centers.

Last two decades saw an active construction of new shopping centers influenced by foreign examples in cities of Ukraine. While following the western way of development, it would be useful to evade the same mistakes and issues that are now being dealt with by shopping centers’ owners and designers in countries more advanced in that regard. With this goal in mind, it is deemed necessary to take into account the existing experience and progressive trends in studying this building type.
A number of modern trends in shopping center design is linked to the practices of placemaking, dealing with people’s relationship to an environment they live in. Therefore, a study of visitors’ perception of five popular shopping centers of Kharkiv constructed in last 15 years is considered relevant. An analysis is based on text reviews published on Google Maps service section. Said analysis is considered an acceptable use in accordance to service’s rules [1].

The following study is based on a general theory and typology of shopping centers developed by B. Maitland and D. Gosling [2]. Said typology defines such types as introverted, integrated and specialized or thematic type. Modern issues in shopping centers’ development are highlighted by V. Reimers [3], J. Stillerman and R. Salcedo [4], J. Beyard et al. [5]. Examples of social studies utilized for defining specifics of shopping centers’ perception by visitors are found in works of N. Beddington [6] and C. Teller [7]. Different sets of qualities influencing shopping center’s attractiveness to visitors were proposed by C. Teller and T. Reutterer [8], S. Bagdare and R. Jain [9], R. Gomes and F. Paula [10]. It is important to note that currently there are no studies of qualitative attractiveness evaluation of Kharkiv’s shopping centers from visitors’ point of view, and the data on the issue is limited.

2. Materials and methods
2.1. Methods
The study utilizes semantic analysis of visitors’ reviews on five modern shopping centers of Kharkiv – 200 reviews per center, 1000 reviews in total. Said reviews are published on Google Maps service, sorted by service as relevant and containing an analyzable textual part. Additional analysis is conducted on 1000 reviews on five foreign shopping centers that are representative of different shopping center types and situated in English-speaking countries (200 per center). Both sets of data are then compared.

Semantic analysis diagnoses either positive or negative character of visitors’ impressions of each of five objects and its corresponding qualities as summed under qualitative categories. Subsequently it allows to visualize the patterns of Kharkiv’s visitors’ preferences’ distribution in regard to different qualities of shopping centers in general.

2.2. Limitations
The sample of respondents is limited by Google Maps service users. Their impressions are published post-factum, therefore relate to the shopping center patronage (connected to the decision of repeat visit) more than to the shopping center retention value (denoting time spent on site). The results obtained are limited by the object of analysis, namely existing types of Kharkiv’s shopping centers and their qualitative characteristics. Therefore the study is supplemented by an analysis of five representative examples of foreign shopping centers for comparison and verification purposes. Additionally, an on-site visitors’ survey on the centers’ premises is planned in the future.

2.3. Choice of qualitative categories
A number of classification variations exists for qualitative characteristics connected to shopping centers’ attractiveness to visitors. Authors propose a new set of qualities based on placemaking practices and three general aspects of environment characteristics’ perception by human, according to D. Canter [11] (physical attributes, activities, conceptions). Therefore it is proposed to designate supposed aspects of shopping centers’ attractiveness to visitors under following qualitative categories: “comfortability” (corresponding to “physical attributes of environment”), “energization of activity” (linked to “activities”) and “aesthetic articulation of the place” (connected to “conceptions’ level). The suggested qualitative categories’ division is based on the possibilities of architectural expression and support of the qualities included. A basic “commercial attractiveness” is a fourth qualitative category that is connected to primary reason for a visit, an availability and diversity of commercial offer. It is mostly out of focus of the current study aside from its general role in center’s attractiveness to visitors, as it is an aspect well covered by other studies and less dependent on architectural and structural specifics of its expression.
The “commercial attractiveness” category is largely defined by two indicators – the quality of tenant mix and the quality of catering options. These indicators may have differing relative values signifying different priorities in shopping center’s market positioning and logic. The phrases “good selection of shops”, “can get everything in one place”, “excellent restaurants” or “lacking food and shopping options” are demonstrative for this category.

The “comfortability” category is comprised of three main qualities – an accessibility of site, convenience of connective recreational space, qualities of parking. Site accessibility describes both pedestrian accessibility of shopping center and its connections to public transportation infrastructure. Convenience of connective recreational space includes the convenience of internal planning and navigation, security, availability of places for a short rest, additional services and a comfortable sanitation infrastructure. The qualities of parking describe impressions of comfort, size, ease of navigation and technical facilities of center’s automobile infrastructure. The “comfortability” category is often characterized in reviews by phrases like “a warm place in a cold weather”, “clean and well lit”, “makes shopping easier” or “place is unsafe”.

The “energization of activity” category includes such characteristics as a social activation, entertainment options and connection with urban spaces. A social activation describes the shopping center’s qualities connected to willing or necessary interaction with other visitors, a liveliness, crowded or deserted character of shopping center’s spaces. Connection with urban spaces assumes an existence of shopping center not as an insular entity, but as an open system, an organic part of urban environment that allows an exchange of visitors with adjacent places. The examples of phrases from reviews that fall under this category are “nice place to hang out with friends”, “like coming here to people watch”, “bustling energy of the place” or “too crowded”.

An “aesthetic articulation of the place” category is defined by such indicators as an atmosphere of internal spaces, architecture and prominent details of shopping center. Reviews speaking about an atmosphere of being inside the complex relate general impressions from aesthetic qualities defining place as a distinct entity on conceptual level. This sense of shopping center as an articulated meaningful place lived-in by people above its basic function is also emergent in reviews on architectural qualities of building as a whole and aesthetic impressions of distinct remarkable details of its environment. This category is characterized by such expressions as “beautiful place”, “striking architecture”, “nice building”, “great sights”, “neat design” or “soulless”, “dull, looks like everything else”.

2.4. Materials
Analysis is conducted on reviews describing visitors’ impressions of five popular shopping centers of Kharkiv. These are “French Boulevard” (opened in 2013, situated in an urban fabric far from the city center), “Ave Plaza” (opened in 2011 in the city center), “Dafi” (opened in 2008 in residential district), “Karavan” (opened in 2007 in residential district) and “Magelan” (opened in 2011 on city outskirts).

Additionally, reviews on five prominent foreign shopping centers of different types are analyzed for comparison purpose. Said centers are “Faneuil Hall Marketplace” (opened in 1976 in Boston, USA, a festival market/mall in a historic place), “Eaton Centre” (opened in 1977 in Toronto, Canada, an urban covered mall tightly integrated into the system of downtown urban spaces), “Mall of America” (opened in 1992 in Bloomington, USA, a third mall by size in USA, with distinct role of entertainment functions), “Cabot Circus” (opened in 1992 in Bristol, Great Britain, an integrated urban mall with mixed covered and open spaces) and “Coal Drops Yard” (opened in 2018 in London, Great Britain, an open urban shopping center close to a thematic type, based on an industrial zone renewal).

3. Results
An analysis of reviews allows to divide them into positive and negative ones, which are subsequently distributed by qualitative categories per center (Figure 1).

Three among five of Kharkiv’s shopping centers received positive reviews measuring around 90 %, namely “French Boulevard”, “Dafi” and “Karavan”. “Ave Plaza” and “Magelan” received only 70,33 % and 68,36 % of positive reviews correspondingly. Moreover, “Magelan” has the least amount
of reviews in total – 3683 reviews by 30.01.2020 in comparison to “Ave Plaza”’s 6761 reviews, while both opened in 2011. Meanwhile, “French Boulevard” that opened in 2013 has 18307 reviews by the same date. This marked difference denotes “Magelan”’s lesser popularity among inhabitants of Kharkiv.

Figure 1. Ratios of positive reviews on five shopping centers of Kharkiv

Three shopping centers have mostly positive reviews in “commercial attractiveness” category (more than 90 %), while for “Ave Plaza” they number around 78,41 % and “Magelan” has only 75 % of positive reviews, indicating a certain level of visitors’ dissatisfaction by existing commercial offer of these two centers. The “comfortability” category received only 59,69 % positive reviews on average. The quality deficiencies are most apparent in this category when present. The dissatisfaction by overcrowding of centers (or, in fewer cases, their deserted state) increases the negative impression of “energization of activity” category, while the availability of additional functions as well as different possibilities for leisure activities are almost universally positively received. The drawback is the lack of an interesting specific for leisure that can cause negative reviews. The “aesthetic articulation of the place” category has more positive reviews in general. The negative reaction from visitors is usually caused by the standard look and non-welcoming atmosphere of internal space or, in fewer cases, an architecture of the building itself when it is considered not appropriate to surrounding urban environment.

The next stage of study is focused on determining a percentage ratio of reviews that signifies visitors’ attention to different qualitative categories, divided per center (Figure 2).

Taking all data on Kharkiv’s shopping centers into account, the generally low level of attention to “aesthetic articulation of the place” category becomes apparent. It is relatively high in reviews on “Ave Plaza” (12,67 %) and “French Boulevard” (13,19 %). The latter shopping center also has the most amount of reviews in “energization of activity” category (31,6 %), followed by “Karavan” and “Dafi” (29,06 % and 27,6 % correspondingly). These two centers have the highest number of reviews in basic “commercial attractiveness” category (46,48 % and 46,5 %) with the lowest indicators in “aesthetic articulation of the place” (9,25 % и 5,52%). Meanwhile, “French Boulevard” has the lowest relative “commercial attractiveness” of the five examples, measuring at 38,02 %.

“Ave Plaza” has the least relative weight of “energization of activity” category in its reviews (16,89 % ) due to the lack of possibilities for active entertainment, while still ranking positively because of availability of additional services and its connection to adjacent urban spaces.
Since the object of study limits the interpretation of results to a degree, the reviews on five foreign shopping centers are analyzed for comparison purpose (Figure 3). These reviews are generally positive (ranging from 89.21 to 91.68%), which is expected for objects successful in their typological niche.

The “comfortability” category received the least amount of positive reviews (76% on average). The least positive reviews in category are on “Faneuil Hall Marketplace” (48.65%, with low relative weight of a category measuring at 6.89%), the most positive are on “Cabot Circus” (85.78%, with significantly higher relative weight of category at 20.37%). An “aesthetic articulation of the place” category has a relative weight of up to 31.54% in comparison with other categories, which is significantly higher than numbers demonstrated in reviews on Kharkiv’s centers. As a rule, reviews in this category are positive.
when present (94.71 % on average). However, a moderate but notable amount of negative reviews in the category (13.97 %) concerns “Mall of America”, the prominent example of super-regional introverted shopping centers with sizable entertainment function. Aforementioned negative reviews generally criticize its standard reading on the place.

4. Discussion
Going by the data on typological characteristics and the situation of shopping centers in urban structure, we can deduce the existence of certain patterns of qualities’ distribution specific to different shopping center types. The diagrams of qualities’ distribution based on the data obtained from analysis show that distinct patterns are indeed present corresponding to shopping centers of specific types (Figure 4).

![Figure 4](Image)

**Figure 4.** Three main patterns of visitors’ preferences’ distribution by qualitative categories (a – pattern for introverted type, b – pattern for integrated type, c – pattern for thematic type; 1 – “commercial attractiveness” category, 2 – “comfortability”, 3 – “energization of activity”, 4 – “aesthetic articulation of the place”).

The similar distribution of qualities can be observed between “French Boulevard” (Kharkiv, Ukraine) and “Mall of America” (Bloomington, USA) in the process of comparing the patterns of visitors’ preferences for shopping centers of introverted type (Figure 4a). This fact corresponds to the common logic of both centers’ positioning as shopping centers with a large role of entertainment functions, designed for a prolonged but rarer visit. The patterns for “Dafi” and “Karavan” are similar enough as both these centers are of the same introverted type gravitating towards an out of city placement that B. Maitland defined as the “department store mall”. However, both are characterized by somewhat lower role of “energization of activity” category, thus perceived as more focused on their primary commercial function.

It is also worth to note the comparably high level of positive reviews on the aforementioned three shopping centers of Kharkiv – “French Boulevard” with 89.15 %, “Dafi” with 90.02 % and “Karavan” with 92.29 %. All three are of introverted type. Combined with the above results it signifies the persisting demand for this shopping center type in Kharkiv. Both “Dafi” and “Karavan” are also situated on directly adjacent plots while having remarkably close characteristics in visitors’ perception. Semantic analysis of visitors’ reviews allows to suppose these centers’ functioning as a singular system with mutually supporting qualities and offer. Both “Dafi” and “Karavan” have a sizably low amount of reviews mentioning “aesthetic articulation of the place” category. Meanwhile, the comparable success of “French Boulevard” with distinctly different distribution of qualities demonstrates the possibility of another approach to an introverted shopping center type’s realization in the context of Ukraine.
“Magelan” presents a special case. It is also an introverted shopping center, going by its structure and out of town situation – but its pattern of qualities’ distribution differs from those of the type. It has a relatively low amount of positive reviews in general. Visitors appreciate its “commercial attractiveness” in rather moderate numbers, while its “energization of activity” relative weight is not high due to its distant situation and lower accessibility in comparison with other centers. However, lower number of visitors in general has unexpectedly caused an increase in “aesthetic articulation of the place” reviews (15.89 % – highest relative amount among Kharkiv’s centers), with visitors appreciating its calm and cozy atmosphere. Still, some reviewers remark on a negative effect of deserted spaces on their mood. This can serve as an evidence in favor of greater differentiation of qualities and types for future shopping centers in Kharkiv with the goal of orienting them towards different visitors’ preferences.

While comparing the preferences’ distribution patterns between examples of an integrated (urban) shopping center type (Figure 4b), the similarity between foreign examples is evident. Meanwhile, “Ave Plaza”’s pattern differs by greater attention to “comfortability” category, even taking into account that said category has relatively high values for all observed examples of the type. It is caused by an observable problem with paid character of center’s sanitation services. Similar distortion of pattern due to negative reviews is observed in case of “Dafi” compared with other examples of introverted type. Going only by positive reviews, the corrected pattern for “Ave Plaza” (displayed on diagram as “Ave Plaza (+)”) is closer to average pattern for the type. The level of visitors’ satisfaction by shopping center’s commercial offer is also relatively moderate.

Existing studies and literature also denote the existence of a third shopping center type by structural organization. It is an extroverted type of shopping center with an accentuated expressive and memorable environment. Examples of the type can be described by common definition of a “thematic shopping center”, which also encompasses objects known as “festival malls” and “lifestyle centers”. The prominent examples of the type analyzed by this study are “Faneuil Hall Marketplace” and “Coal Drops Yard”. Similar to integrated urban shopping centers, they are incorporated into the city, but in a different way. First of all, they supplement urban environment with memorable, energetic, enlivened connective recreational spaces. Said spaces are usually open and adhere less by “comfortability” category, instead observably focusing on “aesthetic articulation of the place” (Figure 4c). Presently there are no examples of said shopping center type in Kharkiv. This is largely due to the fact that Kharkiv’s shopping centers have not yet reached the level of development evident in western countries, wherein rising competition pushes owners into diversifying the existing shopping center types by concept and the way of use. Another possible cause is connected to seasonal limitations for open spaces’ use imposed by Kharkiv’s climate, when open parts of connective recreational space would see less traffic in colder months. However, “Coal Drops Yard” can be considered a successful shopping center despite facing similar limitations (90.81 % of positive reviews), which seems promising for the use of this shopping center type in the conditions of Kharkiv.

An important point in the context of results is a significantly lower attention to an “aesthetic articulation of the place” category demonstrated by Kharkiv’s centers’ visitors in comparison with foreign ones (Figure 5). On the one hand, Kharkiv does not have any example of thematic shopping centers whose perception is structured around this category (and only one example of an urban integrated shopping center). Nevertheless, Kharkiv’s shopping centers have lower indicators in “aesthetic articulation of the place” even in comparison with foreign shopping centers of corresponding types. “Ave Plaza” has a relatively high level of visitors’ attention to this category (12.67 %), while still inferior to its level for “Eaton Centre” (17.16 %) and “Cabot Circus” (17.94 %) of the similar integrated type. “Magelan” has a relatively large amount of mentions of the category (15.89 %), however only 2/3 of them are positive. “Karavan” and “Dafi” both has low level of category weight in its reviews, measuring at 9.25 and 5.52 % correspondingly. “French Boulevard” is a notable exception in this trend, having a rather high relative level of category mentions at 13.19 % while being itself evaluated positively by visitors (89.15 %). It is the only shopping center in Kharkiv that has a clear thematic concept defining both its logic of use and decorations, which is remarked positively upon by reviews. Subsequently, it can be stated that although an “aesthetic articulation of the place” plays a relatively small part in existing
patterns of Kharkiv’s visitors’ preferences for the qualities of shopping centers, this development is not ubiquitous nor regionally ingrained, being probably caused by the present lack of prominent shopping center examples of the type that makes this category the focus of its presentation to visitors.

Figure 5. Comparison of visitors’ preferences for different qualitative categories per shopping center (top row, left to right – “Mall of America”, “Toronto Eaton Centre”, “Cabot Circus”, “Faneuil Hall Marketplace”, “Coal Drops Yard”, bottom row, left to right – “French Boulevard”, “Karavan”, “Dafi”, “Magelan”, “Ave Plaza”).

5. Conclusions
An analysis of reviews on five shopping centers of Kharkiv shows three among them having a positive perception by visitors that is comparable to those of worlds’ prominent examples. Said centers, “Dafi”, “Karavan” and “French Boulevard”, are all of the introverted shopping center type with a significant role of entertainment in its function. This indicates that the retail real estate market of Kharkiv has not yet reached a point of saturation with the type that would consequently lead to diversification of shopping centers’ concepts and ways of use. Notable amount of negative reviews on “Ave Plaza” is caused by an observable problem in “comfortability” category, specifically the center lacking in convenience quality of its connective recreational space. “Magelan” has a wider spread of negative comments by categories, while demonstrating unexpected positive reviews in «aesthetic articulation of the place» category due to changes in the way and intensity of its usage as a recreational space. This result indicates potential possibilities for “Magelan” in case of its reformating into another shopping center type with extended recreational function. In a broader sense it denotes the existence of hidden unrealized reserves, able to manifest spontaneously in the process of shopping center’s usage depending on its localization in urban structure and other factors. Said unrealized reserves can become a resource for further customization and fine-tuning of shopping center’s use, its restructuring or reconceptualization with the goal of increasing its attractiveness to visitors.

The distribution of reviews by categories per shopping center type confirms that presently there are four introverted shopping centers in Kharkiv, and only one of the integrated urban type. There is still no example of thematic type as of yet. Kharkiv’s shopping centers that correspond well to their typological niche, as seen in comparison with prominent foreign examples, are characterized by generally high level of positive reviews. Two shopping centers with lower level of positive reviews have differing distributions of qualities compared with foreign examples of similar type.

Analysis diagnosed noticeably lower level of attention to “aesthetic articulation of the place” category in visitors’ perception of the popular shopping centers of Kharkiv in comparison to perception
of foreign examples. A notable exception is seen in “French Boulevard” which received a generally high amount of positive reviews (89.15 %) that signals a successful application of thematic concept in Kharkiv. Subsequently, the presence of a unifying theme as a narrative semantic resource assisting in identifying a unique image of a shopping center is considered underused in Kharkiv’s situation.

An adoption of shopping center organization methods from western practice and its belated spread in Ukraine lead to the lag in new types’ introduction. In this situation it is considered appropriate to take the progressive experience in global development of shopping centers into account with goal of evading known mistakes and issues. Monitoring the visitors’ perception of existing shopping centers’ environment is deemed relevant in this context. It will allow not only to identify their disadvantages, but also determine hidden potential resources and ways to optimize the spatial characteristics of their environment. Studies of this kind help to reveal and engage regional reserves in the process of development and diversification of shopping centers. Subsequently, the presence of a unifying theme as a narrative semantic resource assisting in identifying a unique image of a shopping center is considered underused in Kharkiv’s situation.

References
[1] Google Maps Platform Terms of Service URL: https://cloud.google.com/maps-platform/terms
[2] Gosling D and Maitland B 1976 Design and Planning of Retail Systems (London: Architectural press)  
[3] Maitland B 1985 Shopping malls: Planning and design (London: Construction Press)  
[4] Raimers V and Clulow V 2009 Retail centres: It's time to make them convenient Int. J. of Retail & Distribution Management 37(7) pp 541–562  
[5] Stillerman J and Salcedo R 2012 Transposing the Urban to the Mall: Routes, Relationships and Resistance in Two Santiago, Chile, Shopping Centers Journal of Contemporary Ethnography 41(3) pp 309–336  
[6] Beyard M D, Corrigan M B, Kramer A, Pawlukiewicz M and Bach A 2006 Ten principles for rethinking the mall (Washington, D.C.: Urban Land Institute)  
[7] Beddington N 1982 Design for Shopping Centres (London: Butterworth Scientific)  
[8] Teller C 2008 Shopping Streets versus Shopping Malls – Determinants of Agglomeration Format Attractiveness from the Consumers’ Point of View International Review of Retail, Distribution and Consumer Research 18(4) pp 381-403  
[9] Teller C and 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) pp 127-143  
[10] Bagdare S and Jain R 2013 Measuring retail customer experience International Journal of Retail & Distribution Management 41(10) pp 790-804  
[11] Gomes R M and Paula F 2017 Shopping mall image: Systematic review of 40 years of research International Review of Retail, Distribution and Consumer Research 27(1) pp 1–27  
[12] Canter D 1977 The Psychology of Place (London: Architectural Press)