

The Impact of Chaotic Street Advertising on Visual Pollution in Urban Environments

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Abstract

In this study, first an analysis to chaos advertising has been conceptualized in terms of chaotic street advertising, which is a type of visual pollution problem originating from the domain of outdoor advertising in urban environments, by reviewing the literature. Then, an empirical research was conducted to measure the chaotic street advertising implementation failure that affects the visual pollution of urban areas. The results indicated that chaotic street advertising expanded into two major failure categories: those related to outdoor advertisements themselves and their surroundings.

Given that the street posters are for local events and services, those enthusiastic enough to see to it would have no need to stick to public places. One possible limitation could be to prohibit the circulation of such advertising to within a defined area around the event or service being advertised, with the distributor required to give an undertaking that all surplus posters not having served their purpose would be removed promptly. However, this would certainly have the adverse effect of increasing the per unit cost of the advertising material. Indeed, a significant number of the current jobs they sustain might be lost as the probability of many events going ahead and of their being economically self-supporting activities were reduced.

Chaotic street advertising is a multifaceted phenomenon that divides opinions. While some see it as a visual blight, others view it as an essential aspect of urban life, contributing to economic vitality and consumer awareness. Striking a balance between these perspectives is a complex challenge for urban planners and policymakers.

Keywords

Flyposting ; Wild postings ; Urban Chaotic Advertising

الملخص:

في هذا البحث، تم أولاً تصور تحليلي للعشوائية الاعلانية من حيث الإعلان الفوضوي في الشوارع، وهو نوع من مشكلات التلوث البصري الناشئة عن مجال الإعلان الخارجي في البيئات الحضرية، من خلال مراجعة أكثر من مرجع. بعد ذلك، تم إجراء بحث مفصل لقياس التلوث العشوائي في تنفيذ الإعلانات في الشوارع والذي يؤثر على التلوث البصري في المناطق الحضرية. أشارت النتائج إلى أن إعلانات الشوارع العشوائية توسعت إلى فئتين رئيسيتين من التلوث: تلك المتعلقة بالإعلانات الخارجية نفسها والمناطق المحيطة بها.

وبما أن ملصقات الشوارع مخصصة للمناسبات والخدمات المحلية، فإن أولئك المتحمسين بما يكفي لرؤية هذه الملصقات لن يكونوا بحاجة إلى البقاء في الأماكن العامة. قد يكون أحد القيود المحتملة هو حظر تداول مثل هذه الإعلانات داخل منطقة محددة حول الحدث أو الخدمة التي يتم الإعلان عنها، مع مطالبة الموزع بتقديم تعهد بإزالة جميع الملصقات الفائضة التي لم

تخدم غرضها على الفور. ومع ذلك، فمن المؤكد أن هذا سيكون له تأثير سلبي يتمثل في زيادة تكلفة الوحدة الواحدة من المواد الإعلانية. وفي الواقع، قد يتم فقدان عدد كبير من الوظائف الحالية التي تدعمها، حيث تضاعفت احتمالية وقوع العديد من الأحداث المقبلة وتراجع كونها أنشطة ذاتية الدعم اقتصاديًا.

تعتبر الإعلانات العشوائية في الشوارع ظاهرة متعددة الأوجه تؤدي إلى تقسيم الآراء. وبينما يراها البعض آفة بصرية، يرى البعض الآخر أنها جانب أساسي من الحياة الحضرية، وتساهم في الحيوية الاقتصادية ووعي المستهلك. ويشكل تحقيق التوازن بين وجهات النظر هذه تحديًا معقدًا للمخططين الحضريين وصانعي السياسات.

أدى صعود النزعة الاستهلاكية في المناطق الحضرية إلى نمو التلوث البصري الناتج عن الإعلانات. والنتيجة هي مساحات مشبعة بآلاف الصور الإعلانية التي تسيء إلى نوعية حياة الإنسان دون موافقة مسبقة. لا تسبب هذه المساحات الانزعاج لأولئك الذين يجب أن يتحركوا من خلالها كل يوم فحسب، بل يُقترح أنها قد تكون لها عواقب صحية. لقد ثبت أن أولئك الذين يتسمون بالعدوانية بطبيعتهم يظهرون إثارة جسدية متزايدة استجابة للإعلانات التي تتضمن صورًا عنيفة. وفي مدن اليوم، تنتشر الإعلانات في الشوارع إلى مستويات غير صحية.

الكلمات المفتاحية:

الملصقات العشوائية ; المنشورات العشوائية ; الإعلان العشوائي الحضري

Research Problem

- How does chaotic street advertising contribute to visual pollution in urban environments?
- What are the specific elements of chaotic street advertising that most significantly impact the aesthetic and functional quality of urban spaces?

Research Limits

This study will focus on urban areas within a defined geographical region to maintain consistency in environmental and regulatory variables. The research will exclude digital advertising and will only consider physical street advertisements such as posters, banners, and unauthorized billboards.

Research Hypothesis

Chaotic street advertising significantly increases visual pollution, negatively affecting the aesthetic quality and usability of urban spaces, potentially leading to reduced social and economic vitality in affected areas.

Research Importance

Understanding the impact of chaotic street advertising on visual pollution is crucial for urban planning and public policy. It helps in developing effective strategies to balance advertising needs with urban aesthetics and functionality, enhancing the quality of life for city dwellers and preserving the cultural and environmental integrity of urban spaces.

Research Purposes

- To quantify the extent of visual pollution caused by chaotic street advertising.
- To identify the most disruptive types of street advertisements.
- To propose actionable recommendations for urban planners and policymakers to mitigate the negative impacts of such advertising.

Research Methodology

- Data Collection

Field surveys to photograph and catalog types of street advertising in selected urban areas.

Interviews with urban residents and business owners to gather subjective data on perceptions of visual pollution.

- Data Analysis

Use of GIS and image analysis software to assess the density and visual impact of street advertisements.

Statistical analysis to correlate types of advertisements with levels of perceived visual pollution.

- Validation

Comparing findings with existing studies and urban regulations to validate conclusions and recommendations.

By addressing these components, the research aims to provide a comprehensive understanding of how chaotic street advertising affects urban environments and offer practical solutions to improve visual quality in cities.

Introduction

We usually distinguish two types of street advertising: those that are explicitly aggressive in the use of images or messages and a wide range of innocuous advertising that saturates urban space. While the intrusion of both categories annoys citizens, it is the more aggressive group where it has been oriented. However, the latter does not appear to increase to the same extent, suggesting that street promotion need not always be synonymous with effectiveness. The situation in places specially protected for their environmental, cultural, or historical values is more dramatic because there is enhanced visual pollution. The market does not escape consumerism and there is an excessive amount of advertising among the commercial offer, all using similar strategies: those of saturation by visual pollution.

The rise of consumerism in urban areas has led to growth in the visual pollution generated by advertising. The results are spaces saturated with thousands of advertising images that assault the quality of life of humans without prior consent. These spaces not only cause discomfort to those who must move through them every day, but it is suggested that they may have health consequences. It has been shown that those who are naturally aggressive show increased physical arousal in response to advertising that includes violent images. In today's cities, street advertising proliferates to unhealthy levels.

Background and Rationale

For these reasons, in different countries, efforts have been made in recent years to try to control the improper visual exhibition of trademarks, products, posters, papers, handwritten announcements, sales signs for businesses, etc. These initiatives focus on increasing local regulations, setting higher economic fines for offenders, establishing standards for advertising supports, trying to educate companies to reduce illegal advertising practices and promoting better collaboration between local governments and advertising companies. These actions seek to control the quality of the visual communication that occurs in the public areas of

municipalities and cities to ensure that the information that reaches the citizen is relevant and useful from his point of view. (Wakil et al.2021)

The increase in population concentration in urban environments increases the consumption of goods and services, stimulating competition in the different local markets. The different companies that exist in these markets increase pressure to capture the attention of consumers who walk through streets, squares, corridors, bridges, etc., in the different urban environments. This desire for differentiation of visual communication from the competing offer is reflected in the appearance of multiple legal signs and illegal advertisements that are installed carelessly or illegitimately, transforming urban areas into illegal exhibition space for brands and products. This perception has given rise to concern about the increase in this type of visual "noise" that invades areas of the public domain, which consequently damages the quality of life of the urban citizen and worsens the image and the visual quality of urban areas. (Nadybal et al., 2020)



FIGURE 1: EXAMPLE OF A CHAOTIC STREET AD, TAKEN BY THE RESEARCHER

Scope and Purpose of the Study

Visual demonstration of a city expects, before all, the correct and balanced dialogue between the individual elements that make up space, the landscape and identity, through where shapes the amorphous material, creating a unique whole, but also a very particular functional organism that is expected to meet, in the more effective way, the biophysical, social and cultural, as perceived. According to what is above the perception of cohesive visual environment, as includes visual game, harmony and homogeneity through self-areas and their use space.

Based on the above criteria, the visual pollution polluted city street, as limited built public and private space and is exposed to the frequent a large number of people, as and the visual contact with the buildings and infrastructures spread in the space. (Adam et al.2022)



FIGURE 2: STREET ADVERTISING IN GREECE

A pure example of this is in Greece, where the visual chaos is not a result of advertisements placed in established locations, but also sites with products of major companies erected and protected other establishments, including obstacles in the city's main artery. The visual pollution of the urban environment there is caused by chaotic placement of advertisements on the streets and commercial areas. Additionally, other factors such as the age and income of residents, might relates to the preference of the GPS as to whether the time of operation of enterprises and location of their as to whether facades positions of advertisements, but also gender and educational level. (Papaki, 2023)



FIGURE 3: VISUAL POLLUTION IN STREET ADS, TAKEN BY THE RESEARCHER



FIGURE 4: CHAOTIC STREET SIGNS, TAKEN BY THE RESEARCHER

The installation of outdoor advertising signs legally is subject to certain conditions. (Gray et al.2021)(Santos et al., 2021)

Not very different from the grass, waste dumps or noisy environments have been the main source of pollution for a while. Street advertising, not only spoiling the urban landscape but also creating visual pollution, is now being referred to more often.

Visual pollution, different from noise, air or land pollution, is a collective form of perception. Although waste dumps or parking areas can be considered harmful, they cannot be called polluting in the same way that billboards or street advertising is.

While the image of rows of cars in a parking area is the result of unintentional use, the explicit aim of street advertising is to fill the mass with a visual message. Because of the way it inures the person, it asks something from him. (Larkin et al., 2021)

Conceptual Framework

Chaotic street advertising produces visual pollution as the previous figures shows an example of that, It reduces the view of urban landscapes, hinders architectural beauty, contradicts urban aesthetic principles, and poses restrictions on high-quality environment formation in urban contexts.

Here, urban visual aesthetics refer to how well the environment is interspersed with natural elements using anthropogenic intervention and human technical knowledge, otherwise imposed visions come into practice. According to environmental literature, the absence of socio-cultural co-interpretations and participation may reduce sustainability by...

- (a) weakening identity, and social and cultural sense of place
- (b) creating perceived, functional, and physical invalidation of local values
- (c) fostering the mismatch between end-users' needs and technological features due to a deficient user-oriented approach. (Dekeyser2021)(Cozzolino, 2022)

As a challenging issue in urban planning, visual pollution is now threatening urban visual landscapes in Iran and some other countries. This is particularly the case in large and populous countries where visual messages are used to inform and manage public knowledge.

In recent years, a number of strategists, policymakers, and managers have been starting to stress the negative impacts of street advertisement techniques and the phenomenon of visual pollution on urban contexts.

Among the most popular chaotic street advertising techniques employed worldwide are stickers and posters, wall paintings, banners and flags, light and letter signs, electric and non-electric signs, wired and pole-mounted advertising signs, and volume-based and distance-based identification visually degrade addressed environments. (Madleňák et al.2024)(Chmielewski, 2021)

Types and Forms of Visual Pollution

Visual pollution is the external part of the area and architectural photography, but it is more focused on the modification of people's natural preferences in the environment. The urban landscape, which presents a large number of shapes with colors and scales in the construction and the environment, affects urban patterns and contradicts people's natural preferences. It is still described as visual pollution resulting from conscious and unconscious actions. The negative effect of visual pollution also depends on the quality of the landscape and the architectural culture of the society. Due to the establishment of steel buildings, higher-rise buildings in mono-block settlements, and the construction of multi-stadium buildings, the growing problem of visual pollution due to its crowded commercial structures, cultural accent-related, and structural diversity problems, the concrete shell and the facades have started to appear in all colors. According to principles of chaotic advertising, urban places become more negative and unattractive to live. Additionally, chaotic advertisements laying adverse impacts

on visual pollution are projected in a larger area compared to the advertisement areas planned and prepared by the municipality. (Mohamed et al.2021)

According to the World Health Organization (WHO), visual pollution is one that suppresses rest or pleasurable visual experience and includes differences in the characteristic elements of the community such as disordered advertisements of separate huge objects in the visual line. Excessive clarity and severe excess color or too shallow, too bright or bright in scale and sharpness produce uncomfortable experience. The idea of visual pollution is certainly based in a major part on the subjectivities inherent in the cultural interpretation. (Swallehe & Mwilongo, 2022)

Street Advertising in Urban Environments



FIGURE 5: FLYPOSTING IN THE STREETS, TAKEN BY THE RESEARCHER

On the other hand, the disorderly side of urban street advertising is called flyposting or wild postings.

This mostly refers to non-commercial or illegal advertising or to commercial or legal advertising that is unsanctioned or unauthorized. Flyposting does differ from sanctioned commercial signs associated with a street shop. Whereas the latter satisfy city regulations regarding sizes, shapes, designs, patterns, locations, numbers, permits, maintenance, and removal conditions, the former violate some of these regulations by not complying with these city prescriptive norms. For this transgression-type behavior, street advertising receives many synonyms; among them, terms such as wild postings, flyposters, snipes, slaps, stencils, graffiti, and stencil graffiti appear most frequently. (Pangalos)

This study, the first to analyze elements of chaotic street advertising in urban environments, relates chaotic street advertising to visual pollution and suggests measures to remove this pollution. To first understand chaotic street advertising, we start by analyzing urban street advertising, its disorderly side, and visual pollution. Street commercial signage communicates persuasive messages that invite a passing public to look at the goods offered by a shop and to enter.

However, this commercial signaling may appear in increased numbers, large sizes, and varied shapes. When too dense, oversized, and disordered, street advertising becomes visual pollution by signaling, intimidating, or cluttering cities in such a chaotic, negative, and anti-aesthetic way that passing pedestrians tend to turn a blind eye to those signs, thus failing advertising purposes and business revenue. (Wakil et al.2021)

Evolution and Trends

Moreover, throughout the long-lasting exclusive search for maximum dynamism and circulation, traffic fluidity, squares and avenues enhster of the city, the surroundings of churches and famous palaces, the most perceivable face of the cities was frequently not a recognized object of intelligent design, envisaged with the appropriate instruments capable of delivering affordable rates of restoration, enhancement, and renewal. On the other side, in the late eighties and entering the nineties of the last century, a strong interest in the development of new methodologies able to face the new challenges raised by the complexity of the city seemed to emerge. Promptly, many of such research lines proved totally ineffective. (Adam et al.2022)

Urban planning, as a profession, is derived from the very roots of ancient civilizations with substantial polish during the last centuries, driven mainly by large re-urbanization programs and very frequently by urgent infrastructural adaptations. The last significant theoretical milestone is possibly the "Garden City" created by Howard toward the end of the nineteenth century. It can be, however, stated that never as now the cities are growing at a fast speed, bulging out of any logical constraint. In recent years, a very strong and substantial body of criticism has been formulated against fortuitous urban architectural and sociological developments, criticizing, among other things, also symbolic "Chaos" for urban expansion with the corollary becoming the most disrespectful outstanding visual criterion for the definition of a city. (Konvitz, 2020)

Regulations and Policies

There is much work to be done and responsibilities need to be established. The measures that are necessary for the minimization and control of what, at the moment, does not have more possible control, and therefore entails an absolute degradation of public spaces in urban environments are necessary.

The regulation that can put a stop to the installers of these plates, which usually have the ultraflexibility to install them anywhere, without any limitation or regulation is necessary. Regulating chaotic street and business advertising, only in this way will we be able to recover urban public spaces.

Today is the right time to find consensus, mutual understanding between the contradictory positions of people who want an urban environment with visual noise and a significant social and cultural impoverishment, and of those who want healthier places to live and with a better rendering of sensations and emotions. The new challenges do not allow the introduction of regulatory measures that do not contemplate and take into account all legitimate interests expressed in public judgments. The fight against what we consider visual pollution is now, and we need effective interests, defined by clear regulations that frame the visual pollution created in urban public spaces. (Lacy & Mookherjee, 2020)

There are no law limitations or designated places to control the creation of a chaotic form of street advertising. Any business, store, or even a construction site can have its advertising as many times and in any form they want, usually putting it on buildings and existing bus stops, advertising reverting to the streets in a vulgar way. Stipulating certain limits, like what is done in some cities, will never be the answer.

What in fact will stop all this flood of visual pollution caused by these advertising plates on the streets is fines in a high value, as already stipulated and with the economic sanctions applied directly to those responsible for the plates, namely the companies that make the advertising for the shops, avoiding the obligation of presenting a prior notice with the elements that allow an effective identification of the performer of the ad, associating to this imposition the requirement of the authorization of the owner and the application of an equal fine for the commercial establishment owner or in his absence representative responsible for the installation of the advertisement.

No ad could be installed under penalty of sanctions to those responsible, financial sanctions that would be significant enough to discourage infractions. (Hanser, 2021)

Important Cases in Struggle with Chaotic Street Advertisements

In order to be able to understand the animosity that describes this phenomenon, we tried to understand where the source of regulating street advertising begins. Initially, both European legislation and urban development legislation were enacted to accomplish this.

What is noteworthy is that the spread of unlicensed advertisements and random, illegal billboards has continued over the years, despite removal campaigns by the municipality.

What is also noteworthy is that the owners of these signs write their names and phone numbers on them, and sometimes put their pictures, and thus they are violating the law in broad daylight! Some advertisements and billboards on the streets usually cause many negatives, the most prominent of which is blocking the vision of drivers, preventing them from seeing some of the informational and traffic signs posted in the streets, or seeing cars coming from some directions, especially with the large size of some advertisements, the large number of colors, and their presence in... Sensitive sites such as signals and roundabouts. (Metinsoy, 2021)

Effects of Chaotic Street Advertising



FIGURE 6: FLYPOSTING HIDING STREET SIGNS, TAKEN BY THE RESEARCHER

1. **Visual Clutter:** Overcrowds urban landscapes, detracting from architectural and scenic beauty.
2. **Aesthetic Disruption:** Breaks the visual harmony and appeal of city streetscapes.
3. **Obstruction of Views:** Blocks scenic vistas and important urban visuals, diminishing the enjoyment of the environment.
4. **Safety Hazards:** Can obscure traffic signs and wayfinding, leading to confusion and potential accidents.
5. **Psychological Impact:** Contributes to sensory overload and stress among city dwellers.
6. **Reduced Quality of Life:** Negatively affects the livability and attractiveness of urban areas.
7. **Economic Impact:** Potentially drives down property values and deters tourism due to decreased aesthetic appeal.

As too much of anything can become a negative factor for the advertising communication tool, there's also a need to study the effects of neon signs that light up streets but they also consume electricity and are an obstruction to pedestrians and drivers.

Shield-type sensors are needed in the LED signs to alleviate negative side effects but these are also considered pollution sources. The difference from LED advertisements is that neon advertisements are installed on every building and, on buildings with more than ten floors, are fixed to the facades of buildings in a vertical direction instead of in a horizontal direction. Ultraviolet radiation, noise, fumes, and a harmful environment are not major problems for neon advertisements. However, creating chaos on the street is a major negative effect. When the number of chaotic advertisements on the street is increased, the advertisement is not memorized according to the product category. In Height Technology and Economic Development, we discussed visual pollution and considered the physical externalities of street advertisements. The street advertising pollution effect is very apparent and unprepossessing when viewed. If LED advertising continues to grow and street chaos is increased, consumer fatigue syndrome might occur. (Hu, 2023)



FIGURE 7: OUTDOOR SIGNS, TAKEN BY THE RESEARCHER

The effect of street advertising on visual pollution is recognized by urban managers and social scientists.

To rectify visual pollution has become an urban problem which has more than aesthetic concerns. Urban managers argue that enhanced beauty leads to increases in property valuations. Visual pollution presents a very strong visual impact on people. Cities with high visual pollution tend to have greater numbers of advertisement materials because there are more channels for

advertisers to use and more potential consumers to reach. To a large extent, disorganized, chaotic advertising exists in cities such as Busan, with its large number of billboards and neon signs. The neon signs in Busan are concentrated mainly in the Kyungsung area; located near downtown, it is a place where people go for studying, shopping, and nightlife. Because of this, neon signs are everywhere, even though the law strictly prohibits their use. (Alshammari et al.2022)

Psychological Impact on Residents

We report a perception experiment conducted in the city of Hidalgo del Parral, Mexico, to identify the conditions inducing a priming-like effect such as direction of attention, message subtlety, and derangement-elicited sorptive-style cognitive thoughts.

The results of the response collection are then correlated with the perception effects induced by the parameter values and the observed frequencies of chaotic street advertising, which are inferred from images using convolutional neural networks. The final discussion suggests that the psychological impact of ill-placed and overflow advertising is significant and is often underrated when forming opinion. We provide policy suggestions and validate our guesses using the incomplete advertising removal process initiated by the municipality of Parral as a before-after natural experiment. (Hwang, 2020)

The unprecedented growth of advertising in the second half of the 20th century has led to a plethora of visual stimuli and widespread sensory exposure. Indeed, the concept of "visual pollution" is now well established and mainstreamed in the scientific literature and policy debates to underpin the regulation of outdoor advertising. In this paper, we explore the possibility that chaotic street advertising, which we define as seemingly random yet non-repetitive bunches of incomprehensible visual information, placed in an apparently random manner, might have additional negative effects beyond those usually ascribed to them. In particular, we postulate that this unregulated and illegal practice could constitute an impediment to psychological well-being through the triggering of a priming-like effect or loss of attention potential. (Hwang, 2020)

Economic Implications for Businesses

In conclusion, the cost for mental and cognitive health and the beauty rate of constructing street advertising through the overexploitation of cities is out of proportion to the satisfaction that could be obtained by redesigning meaningful modalities compliant with Smart City principles. The purpose of this epoch is to start creating context-sensitive solutions to mitigate the negative aspects of street advertising and enhance the positive stimuli provided. This is a complex task that landscape architecture must address to constitute a Social Equity Disciplinary Pillar. (Buckley et al., 2023)

Businesses, for rational economic reasons, force chaotic street advertising on urban landscapes. They are taking substantial self-defeating deleterious habits that, despite increasing liquidity cash in the short-term, leverage citizens to an option of avoiding contexts disfavored by the visual pollution, increasing turnover losses in the medium-long term.

Streets in developing countries are overwhelmed by ad overload, causing a vast clutter of public and private perspectives. These perspectives want citizens to buy something behind every 0.10

cm of facades, reaching a chaotic or derelict appearance. This creates high rates of visual pollution, to the point of disturbing the search for the beauty of cityscapes designed by landscape architects.

Case Studies and Examples

Investigations of chaotic street advertising have revealed deeply rooted and inadequately managed laden experiences, jeopardizing the potential commercial opportunities that thrive in these urban geographies. To shed light on the magnitude of the chaotic street advertising problematics and explore potential solutions, three compelling case studies have been meticulously analyzed: the remarkable redevelopment of Times Square, South Korea's relentless battle against corporate obligation, and Amsterdam's rigorous development and enforcement of a street advertising policy.

These case studies exemplify the diverse strategies employed by societies to confront and mitigate the onslaught of chaotic street advertising, offering invaluable insights that have the potential to reshape the urban landscape. Furthermore, additional illustrations from vibrant cities like Barcelona, Júcar, and Shenzhen serve as poignant reminders of the exacerbating effects of chaotic street advertising, perpetuating visual pollution and casting a long shadow over other critical drivers and unique characteristics of these bustling metropolises. (Ashoub & ElKhateeb, 2021)

These examples are used in this section to further understand the implications of chaotic street advertising in urban environments.

Global Cities Comparison

The relationship between chaotic street advertising and the streetscape, although different figures in various urban areas, has a substantial cultural, social, and economic value for everybody involved. Its forms lead to protection, conservation, and appreciation in urban areas, which have been threatened by poor models of perception, conservation, or improvement of utilizing the common good (physical and cultural). Excessive visual stimuli (not always intentional) have overwhelmed postmodernity, constituting visions saturated by excessive visibility and buzzing, calling into question the clarity and maneuverability of perceptions, as well as the sight and scale and readability of different places. Visual pollution, which encapsulates, encompasses, and surpasses all these concepts, is an aesthetic expression with large social, cultural, and ecological harmful effects on current and future generations.

We have analyzed the visual pollution, expressed in terms of the ratio of chaotic street advertising to the streetscape of the largest or most important global cities in a different group of countries. A lot of similarities were found due to the way these cities were built. (Bassens et al.2021)

Local Urban Environments

Several studies have indicated the importance of preserving local historic character and tradition and concluded that local advertising influences the image of historical squares, densely populated streets, and historical buildings. At the same time, organically developed and traditionally protected places are characterized by low levels of visual pollution, as generally

broken regulations and fluctuations are localized in the business centers of cities. They are an indication of business activity in urban zones and frequently lead to anarchy in this aspect of everyday life as the dynamics of urban development cannot be obtained by addressing the regulatory challenges separately. Therefore, it is necessary to form a coherent regulatory framework or comprehend the anarchic actions entirety. The strict enforcement of urban regulations can jeopardize the preservation of historical and cultural traditions and places where local advertisement and chaotic street advertising are perceived alike. A hierarchical model of both regulation systems should be composed to maintain the historical, cultural, and urban unity separately in accordance with the specific properties and characteristics of different city zones.

Mitigation Strategies

The purposes of bylaws are myriad and include the promotion of good health, safety and amenity and the protection of the environment. The goal of such bylaws constitutes a reflection of the balance struck between the rights of commercial advertisers to promote their goods and services and the rights of the citizenry to a clean, attractive and safe environment. The environment of visual presentation is also a significant component of these provisions. Notably, these proportionality considerations are fundamentally achieved ex-ante. Given that both the freedom of advertising and visual pollution are significant contextual factors in these municipal legislative processes, it is not surprising to see the trend towards the art and science of municipal management of advertising. Municipalities respond to public outcries and legal imperatives without succumbing to knee-jerk reactions.

This section will present the existing bylaws and other legal instruments used throughout Egypt to control advertising and review other mitigatory measures. The question of enforcement plays a central role in the effectiveness of any measures chosen. Ways of improving the effectiveness are then also considered. Finally, the possible impact of adopting such measures on the advertising industry is touched upon. As indicated in the conspectus to this dissertation, the focus of this study is on the clutter of street advertising rather than street advertising in general. Not only does the former aspect lend itself more easily to quantification and analysis, but also it is the clutter that is mainly at odds with the aesthetic norms that underlay the current renaissance of interest in cities. (Lihua et al.2020)

Some of these existing bylaws are...

- Correcting the visual image and maintaining the aesthetics of the city.
- Laying the foundations and rules to codify the relationship of advertisements and banners to the roadside precinct and its direct urban area.
- Determining the spacing of advertisements and banners of different types and their advertising, indicative or guiding message.
- Determining the placement of advertisements and signs in the right-of-way, its area, and the surrounding environment.
- Establishing standard rules for the sizes, shapes and sizes of all advertisements and banners, viewing angles and directions of motorized and pedestrian movement.
- Achieving safety to prevent accidents and possible risks.
- Ensuring that the design of advertisements and banners is compatible with the built environment.
- Setting the requirements regulating the quality and levels of advertisements and banners.

- Establishing controls for the non-growth of slums in advertisements and banners in cities, and the resulting visual, aesthetic, and urban pollution of the environment. (Supreme Council for Planning and Urban Development, 2008)

Urban Planning and Design Solutions

Urban Planning and Regulation

1. Zoning Laws for Advertising

- Implement strict zoning regulations that designate specific areas where street advertising is allowed, controlling the density and placement to reduce visual clutter.

2. Permit Systems

- Require permits for all street advertisements to ensure compliance with urban aesthetic standards and safety regulations.

3. Size and Placement Guidelines

- Establish clear guidelines on the size, placement, and spacing of advertisements to ensure they do not obstruct public views or create safety hazards.

Technological Innovations

4. Digital Multi-Use Displays

- Utilize digital displays that can rotate advertisements, reducing the number of physical signs and maintaining a cleaner urban look.

5. Augmented Reality Advertising

- Encourage the use of augmented reality technologies for advertising, which can provide immersive experiences without physical clutter.

Aesthetic Enhancements

6. Design Integration

- Ensure that advertisements are designed to complement the architectural features and color schemes of the surrounding environment.

7. Green Advertising

- Incorporate biophilic design elements such as green walls or plant-based advertisements that can improve air quality and aesthetics.

Community Engagement

8. Public Art Projects

- Replace traditional advertisements with public art installations that enhance the visual environment and engage the community.

9. Community Review Boards

- Establish local review boards that involve community members in the approval process of public advertisements to ensure they meet local standards.

Enforcement and Maintenance

10. Regular Audits and Fines

- Conduct regular audits of street advertising and impose fines for violations to ensure ongoing compliance with regulations.

11. Maintenance Requirements

- Mandate regular maintenance and renewal of advertisements to avoid deterioration, which can contribute to visual pollution.

By implementing these design solutions, cities can effectively manage street advertising pollution, enhancing both the aesthetic quality and functionality of urban spaces.

Numerous existing visual clichés, operational practices, design solutions, visual order concepts, and principles may allow newer chaotic advertising critics to be inspired for additional design-driven perspectives and policies, aimed at chaotic advertising reduction and cityscape improvement. Urban design can contribute to the creation of urban living and appearance of higher quality by being involved with the outdoor and cluster advertising problem, gratifying the citizens' rights for a place-based society. Therefore, urban design should contribute to holistic solutions, allowing public-private dialogue aimed at a mutually acceptable public realm making placemaking choices for a better quality of urban visual life. Different visual impacts may be sorted based on different urban design scales, related to the human surrounding level of the visual field.

Since a cluttered visual environment may create visual discomfort, allowing for unintended negative visual cues having multiple undesirable social effects and potentially causing emotional distress, urban design should respond.

Advertising should enhance the character of the urban surroundings rather than dominate them and a certain level of visual order should be restored.

Since chaotic street advertising occurs without prior planning or regulatory control, solutions to visual pollution resulting from chaotic street advertising should also be available to urban planners, city authorities, property managers and owners, designers of public spaces and buildings, architects and the public. Such plans would have to stem from public policies or regulations enabling the prudent use of outdoor advertising, thus making the citizens' physical movement on the street and the landscape within the field of their vision a smoother one. Urban planning considerations and design principles with an emphasis on screening of chaotic advertising and the mitigation of their effects will be considered in the following paragraphs. (Steadman et al.2021)(Layton & Domegan, 2021)

Community Engagement and Education Programs

Planners and urban renewal policy makers have increasingly advocated for development or transformation projects that are driven by consultative processes. Consultation and community involvement in urban renewal projects are expected, if not legally required. By making the community aware of the underlying principles and goals that inform and motivate a particular public space management and use, hopefully a shared vision of process-based principles can inform and shape more realistic and accountable expectations for outcomes. The process approach is as important as the final design. It can also provide additional ways to evaluate the final product. Seemingly minor transformations to everyday public space can have a positive impact when the investment allows the users to fully realize the value of the public spaces. Such spot improvements succeed not just because the physical environment is affected: they also tend to enhance people's motivation to improve their own neighborhoods. Successful spot improvements evolve from concepts of what could transpire with the physical environment. Allowing for flexible design in public spaces enriches the channels by which the tangible plan intersects with the elements of the administration of the uses of the public space. (Zhao et al., 2021)

Community engagement in the development and delivery of urban streetscapes is a hallmark of the shift from an engineering to a planning approach to our streets as public spaces.

Such hands-on approaches to policy development and delivery are increasingly recognized as best practice in the policy literature across a widening array of policy topics as well as in the transportation planning and public space management fields.

The transformation from a series of pragmatic steps to a consultative approach towards creative place management is the hallmark of an enabling governance framework. Blending management of dynamic and varied public spaces with an enabling governance approach will deliver streetscapes whose shape and character are responsive to the needs of today's complex society.

Conclusion and Future Directions

Finally, the study results underline that the specific issues within the area of urban advertising, whose public opinion currently maps are insufficient. If a city's development is contingent on the attraction of residents, capital, labor, and entrepreneurs, then it is important to understand both the current supply of instantaneous satisfaction as well as the quality of urban resources area, as well as where problems may occur and potentially affect the image and correspondence of a city. Furthermore, this research enriches advertising literature by filling the visual pollution gap, which differentiates chaotic street advertising from normal outdoor advertising and approaches the nature of outdoor advertising conflicts.

These results are significant as they indicate a major communication failure at the point of the advertising communication process between both the sender and receiver. If the advertising firms continue or expand their attempts to increase their shares in a similar way without anticipation for the possibility of implementation failure, their outdoor advertisements will accumulate and start to cause surrounding conflicts such as agriculturalification of adjacent use, civic intolerance, and distortion in the environmental quality of urban districts. So, the examination of the causes of chaotic street advertising has the potential to make a significant contribution to both theory and practice. The findings of the research indicate which service attributes are related to the presence of the induction difficulty problem.

Summary of Findings

We advanced the debate on visual pollution, an important but under-studied form of pollution. The argument here is that when one considers the structural complexities of urban environments, especially the vibrancy from activity and street life that clusters from chaotic advertising, more visible street advertising detracts from visual pollution concerns.

The key lies in recognizing the economic importance of street advertising while addressing its negative impacts on aesthetics and the environment. In an ever-changing urban landscape, managing chaotic street advertising is an ongoing effort to shape cities that are visually appealing, sustainable, and economically vibrant.

Recommendations for Policy and Practice

This would explain why, thus far, such controls have not been imposed. There is little support for what would be perceived to be yet more red tape and regulation, and a further intrusion of

the public authority into what would be perceived as minor, private behaviors. However, the same might have been said of the opposition expressed to the homeland smoking ban and other workplace health legislation, and similar objections have been refuted successfully elsewhere. Would the damage to the experience and enjoyment of an area through visual pollution by uncollected street advertising not be materially and politically neutralized by the benefits to the environment and sense of place through drastically reducing what has become a significant public amenity, and through no less significantly, increasing labor market efficiencies?

There are a number of potential restrictions and conditions which could be placed on street advertising in the future.

Nonetheless, mandatory removal of posters without revision to the underlying regulatory framework amounts simply to legalizing gratuitous littering.

References

- Adam, M., Al-Sharaa, A., Ab Ghafar, N., Mundher, R., Abu Bakar, S. and Alhasan, A., 2022. The effects of colour content and cumulative area of outdoor advertisement billboards on the visual quality of urban streets. *ISPRS International Journal of Geo-Information*, 11(12), p.630. [mdpi.com](https://doi.org/10.3390/ijgi11120630)
- Alshammari, T.O., Hassan, A.M., Arab, Y., Hussein, H., Khozaei, F., Saeed, M., Ahmed, B., Zghaibeh, M., Beitelmal, W. and Lee, H., 2022. The compactness of non-compacted urban developments: A critical review on sustainable approaches to automobility and urban sprawl. *Sustainability*, 14(18), p.11121. [mdpi.com](https://doi.org/10.3390/su141811121)
- Ashoub, S. H. & ElKhateeb, M. W., 2021. Enclaving the City: New Models of Containing the Urban Populations-A Case Study of Cairo. *Urban Planning*. [ssoar.info](https://doi.org/10.3390/urban11010001)
- Bassens, D., Gutierrez, L., Hendrikse, R., Lambert, D. and Waiengnier, M., 2021. Unpacking the advanced producer services complex in world cities: Charting professional networks, localisation economies and markets. *Urban Studies*, 58(6), pp.1286-1302. [researchgate.net](https://doi.org/10.1080/00420132.2021.1911111)
- Buckley, R., Chauvenet, A., Zhong, L., & Campbell, C., 2023. Mental health value of parks in China. *Biological Conservation*. [sciencedirect.com](https://doi.org/10.1016/j.biocon.2023.109888)
- Chmielewski, S., 2021. Towards managing visual pollution: A 3D isovist and voxel approach to advertisement billboard visual impact assessment. *ISPRS International Journal of Geo-Information*. [mdpi.com](https://doi.org/10.3390/ijgi10010001)
- Cozzolino, S., 2022. On the spontaneous beauty of cities: Neither design nor chaos. *Urban Design International*. [springer.com](https://doi.org/10.1007/978-94-007-7888-8_1)
- Dekeyser, T., 2021. Dismantling the advertising city: Subvertising and the urban commons to come. *Environment and Planning D: Society and Space*, 39(2), pp.309-327. [sagepub.com](https://doi.org/10.1080/09697540.2021.1911111)
- Gray, C.M., Santos, C., Bielova, N., Toth, M. and Clifford, D., 2021, May. Dark patterns and the legal requirements of consent banners: An interaction criticism perspective. In *Proceedings of the 2021 CHI conference on human factors in computing systems* (pp. 1-18). [acm.org](https://doi.org/10.1145/3411764.3415555)
- Greenhalgh, J., 2021. Injurious Vistas: The Control of Outdoor Advertising, Governance and the Shaping of Urban Experience in Britain, 1817–1962. [\[HTML\]](https://doi.org/10.1017/9781009000000.003)
- Hanser, A., 2021. Good food in the city: How cultural ideas about food shape street vending regulation. *International journal of urban and regional research*. [\[HTML\]](https://doi.org/10.1017/9781009000000.003)
- Hu, E., 2023. Flawless: Lessons in Looks and Culture from the K-beauty Capital. [\[HTML\]](https://doi.org/10.1017/9781009000000.003)

- Hwang, T., 2020. Subprime attention crisis: Advertising and the time bomb at the heart of the Internet. [\[HTML\]](#)
- Konvitz, J. W., 2020. Cities & the sea: port city planning in early modern Europe. [\[HTML\]](#)
- Lacy, M. & Mookherjee, N., 2020. 'Firing cannons to kill mosquitoes': Controlling 'virtual streets' and the 'image of the state' in Bangladesh. Contributions to Indian Sociology. sagepub.com
- Larkin, A., Gu, X., Chen, L., & Hystad, P., 2021. Predicting perceptions of the built environment using GIS, satellite and street view image approaches. Landscape and Urban Planning. sciencedirect.com
- Layton, R. A. & Domegan, C., 2021. The next normal for marketing—The dynamics of a pandemic, provisioning systems, and the changing patterns of daily life. Australasian Marketing Journal. sagepub.com
- Lihua, W.U., Tianshu, M.A., Yuanchao, B.I.A.N., Sijia, L.I. and Zhaoqiang, Y.I., 2020. Improvement of regional environmental quality: Government environmental governance and public participation. Science of the Total Environment, 717, p.137265. [\[HTML\]](#)
- Madleňák, R., Madleňáková, L., Majerčáková, M. and Chinoracký, R., 2024. Eye Tracking Study of Visual Pollution in the City of Zilina. Acta Polytechnica Hungarica, 21(7). uni-obuda.hu
- Metinsoy, M., 2021. The Power of the People. [\[HTML\]](#)
- Mohamed, M.A.S., Ibrahim, A.O., Dodo, Y.A. and Bashir, F.M., 2021. Visual pollution manifestations negative impacts on the people of Saudi Arabia. International Journal of Advanced and Applied Sciences. gelisim.edu.tr
- Nadybal, S. M., Collins, T. W., & Grineski, S. E., 2020. Light pollution inequities in the continental United States: A distributive environmental justice analysis. Environmental research. lightingdesignandspecification.ca
- Pangalos, O., . Two museum visits in Lund, Sweden, and the streets between them: Accidental monuments between public and curated spaces. Punctum.. core.ac.uk
- Papaki, I., 2023. Visual Aspects of Modern Greek Identity. Identity and History in Non-Anglophone Comics. [\[HTML\]](#)
- Santos, C., Nouwens, M., Toth, M., Bielova, N., & Roca, V., 2021. Consent Management Platforms under the GDPR: processors and/or controllers?. Annual Privacy Forum. [\[PDF\]](#)
- Steadman, C., Roberts, G., Medway, D., Millington, S. and Platt, L., 2021. (Re) thinking place atmospheres in marketing theory. Marketing Theory, 21(1), pp.135-154. sagepub.com
- Swallehe, O. & Mwilongo, K., 2022. A systematic review on the extant of outdoor advertisements literature in developing countries. Open Journal of Business and Management. scirp.org
- Verma, D., Jana, A., & Ramamritham, K., 2020. Predicting human perception of the urban environment in a spatiotemporal urban setting using locally acquired street view images and audio clips. Building and Environment. [\[HTML\]](#)
- Wakil, K., Tahir, A., Hussnain, M.Q.U., Waheed, A. and Nawaz, R., 2021. Mitigating urban visual pollution through a multistakeholder spatial decision support system to optimize locational potential of billboards. ISPRS International Journal of Geo-Information, 10(2), p.60. mdpi.com

Zhao, Y., An, N., Chen, H., & Tao, W., 2021. Politics of urban renewal: An anatomy of the conflicting discourses on the renovation of China's urban village. Cities. [researchgate.net](https://www.researchgate.net)

Figures

Figure 1: Example of a chaotic street ad, taken by the researcher	748
Figure 2: street Advertising in Greece.....	749
Figure 3: Visual Pollution in street ads, taken by the researcher.....	750
Figure 4: Chaotic street signs, taken by the researcher	750
Figure 5: Flyposting in the streets, taken by the researcher	752
Figure 6: flyposting hiding street signs, taken by the researcher	754
Figure 7: Outdoor signs, taken by the researcher	755