

ROAD TRAFFIC SAFETY MANAGEMENT OF VISUAL POLLUTION BY
OUTDOOR ADVERTISEMENTS

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A report submitted in partial fulfilment of the
requirements for the award of the degree of
Master of Engineering (Construction Management)

School of Civil Engineering
Faculty of Engineering
Universiti Teknologi Malaysia

JANUARY 2020

DEDICATION

This report is dedicated to final year project supervisor, Dr. Ain Naadia Binti Mazlan who guided me throughout the project. She gave me many valuable suggestions and encouragement for accomplishing the project. She also helped me to understand the critical issues that involved in the project-making and provided necessary and important information so that I could overcome all the issues. My project has been accomplished because of her guidance.

I would like to express my great appreciation to my parents. They gave valuable encouragement so that I could complete the project without giving up. They have sacrificed their time to stay up with me whenever I faced the problems during the project. Their attention and time are much appreciated and these have helped me in completion of this project.

Thank you!

ACKNOWLEDGEMENT

First of all, a special thanks I give to my final year project supervisor, Dr. Ain Naadia Binti Mazlan who guided me throughout the project. She gave me many valuable suggestions and encouragement for accomplishing the project. She also helped me to understand the critical issues that involved in the project-making and provided necessary and important information so that I could overcome all the issues. My project has been accomplished because of her guidance.

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Next, I would like to give my gratitude to my final year project coordinators who provided many useful information during the project. They have taught me a lot such as on thesis writing and on the format of the thesis writing. Without their help, I would never accomplish my project.

Lastly, I would like to thank to my friends, couremates and also the people who have willingly to help me out with their abilities during the project.

ABSTRACT

Visual pollution is a type of pollution that hinders the ability of the one to enjoy the view. The visual pollution can be caused from many sources such as haze and lighting features. However, the most common and critical source of visual pollution is in the form of advertising especially in urban areas are signboards and billboards. Multiple studies have shown that excessive advertising in terms of signboard and billboard can bring harmful effects to the public. The aim of this study is to analyze the impact of visual pollution caused by outdoor advertisements in Wilayah Persekutuan Kuala Lumpur and Selangor. To fulfill this aim, three main objectives were developed. First, to study the policy and rules that govern the billboards and signboards installation, to determine the public perception on the visual pollution in terms of billboards and signboards and finally is to propose the solutions to minimize the visual pollution and increase public awareness on the visual pollution. Two types of survey were conducted, which are interview and questionnaire distribution. Five respondents were randomly picked to determine their understanding on visual pollution by short interview session method. Based on the interview session, most of the interviewee was unfamiliar with visual pollution concept. This shows that the public level of awareness on visual pollution are still low compared to other types of pollution. A total of fifty visual type questionnaires that consists of three picture questions were dispersed. Based on the questionnaire result, most of the respondents from public believed that having large amount which is more than four number of billboards and signboards in a same area could cause the most visual pollution to the public. In addition, electronic billboard is also believed to cause higher visual pollution to the public compared to the conventional billboard. Nevertheless, billboard cause the most eye discomfort and distraction especially during night time from the public perception. The policy and rules that govern the billboards and signboards installation are studied in this research. The guideline for the installation of signboard and billboard was found to be not detailed which causing improper management and ultimately lead to visual pollution.

ABSTRAK

Pencemaran visual merujuk kepada pencemaran yang menghalang keupayaan seseorang untuk menikmati pemandangan. Pencemaran visual boleh disebabkan oleh banyak sumber termasuk ciri jerebu dan pencahayaan. Walau bagaimanapun, sumber pencemaran visual yang paling umum dan kritikal dalam bentuk pengiklanan di kawasan bandar adalah papan tanda dan papan iklan. Malangnya, pengiklanan dari segi papan tanda dan papan iklan telah membawa kesan berbahaya kepada orang ramai. Sebagai contoh, isu keselamatan lalu lintas jalan, isu pengindahan alam sekitar dan isu pengurusan pemasangan. Oleh itu, matlamat kajian ini adalah untuk menganalisis impak pencemaran visual yang disebabkan oleh iklan luaran di Wilayah Persekutuan Kuala Lumpur dan Selangor manakala tiga objektif utama kajian ini adalah mengkaji dasar dan peraturan yang mengawal pemasangan papan tanda dan papan iklan, menentukan persepsi orang ramai mengenai pencemaran visual dari segi papan iklan dan papan tanda dan untuk mencadangkan penyelesaian untuk meminimumkan pencemaran visual dan meningkatkan kesedaran orang ramai terhadap pencemaran visual. Dua jenis tinjauan telah dijalankan, iaitu melalui wawancara dan pengedaran soal selidik. Lima responden dipilih secara rawak untuk menentukan lagi pemahaman mereka terhadap pencemaran visual melalui kaedah sesi wawancara ringkas. Berdasarkan hasil wawancara ringkas, kebanyakan orang yang ditemuduga tidak mengetahui konsep pencemaran visual. Kajian ini menyimpulkan bahawa orang ramai kurang memahami ke arah pencemaran visual. Sejumlah lima puluh lembar soal selidik gambar yang terdiri daripada tiga soalan dibagikan. Berdasarkan hasil soal selidik, kebanyakan responden dari orang awam percaya bahawa jumlah besar yang lebih dari empat papan iklan dan papan tanda di kawasan yang sama dapat menyebabkan pencemaran visual yang paling serius kepada masyarakat. Papan iklan elektronik juga dipercayai menyebabkan pencemaran visual yang lebih tinggi kepada orang ramai berbanding dengan papan iklan konvensional. Walau bagaimanapun, papan iklan akan menyebabkan ketidakselesaan dan gangguan perhatian yang paling tinggi terutamanya pada waktu malam dari persepsi orang ramai. Dasar dan peraturan yang mengawal pemasangan papan tanda dan papan iklan juga diperhatikan dalam kajian ini. Garis panduan pemasangan papan tanda dan papan iklan didapati tidak terperinci dapat menyebabkan pengurusan yang tidak betul dan membawa kepada pencemaran visual. Garis panduan papan tanda dan papan iklan tidak dapat ditemui di Malaysia dan oleh itu membawa kepada papan iklan dan papan tanda yang tidak teratur.

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LIST OF ABBREVIATIONS

DUKE	-	Duta-Ulu Kelang Expressway
NKVE	-	New Klang Valley Expressway
WHO	-	World Health Organization
TCI	-	Task Capability Interface
ASA	-	Advertising Standards Authority Malaysia
LED	-	Light-Emitting Diode
CMCF	-	Communications, Multimedia Content Forum

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CHAPTER 1

INTRODUCTION

1.0 Background of Study

Billboard is a medium that is commonly used to provide information on specific products or services (Luke, et. al., 2000). It is usually a large poster that contain certain information for the public. Billboard can also be defined as a very large advertisement along the side of a highway. Therefore, it is considered as part of road furniture and can affect the road traffic safety. It is used to target and attract the attention of motorists, drivers and pedestrians (Hadas, et. Al., 2017).

Nevertheless, media is the pathway for the community today to collect information and data. Sign is one of the media that providing much information to us every day. It is no doubt to say that sign is an essential element in distributing information and data. A sign can be made up of letters or symbols that served as the purpose to recognize somethings and as a media to provide information on specific products or services. Besides that, it can be used as a warning, safety advisor or command (Kavati, et. al., 2017). Therefore, other than billboard, signboard is also considered as one of the types of outdoor advertisement. It has been used globally by business company especially the shop lots to advertise their shop. Signboard is usually located just in front of the shops to give information to the public about this shop. Signboards are usually different in size and shape and is usually designed in very fancy way to attract the attention of public so that the public would pay a visit to the specific shop.

However, excessive marketing in public spaces can pose danger to the sight of the viewers. The existence of giant billboards is common as many companies take advantages of a long distance highway side to promote their product and services. Such billboards are usually large and distracting. These parameters have a significant

impact on the drivers' visual performance which could be a potential threat on road traffic safety (Zalesinska, 2018).

This phenomenon is termed as visual pollution. Visual pollution is refer to the pollution that hinder the ability of the one to enjoy the view (Milan Kumar Jana, et. al., 2015). The visual pollution can be caused from many sources including haze and lighting features. However, the most common and critical source of visual pollution in the form of advertising at urban areas are signboards and billboards. Studies on visual pollution have started in 1983 by researchers such as Ashihara. Multiple studies have shown that billboard along road and highway posed safety threat and is considered as one of category in visual pollution (Belyusar, et. al., 2016).

1.1 Problem Statement

There are many types of pollution that have been classified to have negative effects on our daily lives in various ways. Apart from the most pollutions that have raised the public concern such as air and water pollution, there are some other types of pollution that affect us in a significant way. One such example is visual pollution which is relatively newer and unconventional concept that totally ignore by the public. This is the fact that most pf the public does not understand about visual pollution and also its root cause. Our first impression of a community is its visual environment that entails a mosaic of built and natural forms.

Advertising in term of signboard and billboard are now commonly practice globally to attract the attention of the public. Unfortunately, this billboard has brought harmful effects to the public. Figure 1.1 showed an electronic billboards around Kuala Lumpur City Centre, Jalan Tun Razak. They are so bright and may cause eye discomfort. Road user can be distracted during driving when the advertisements suddenly flash on the white screens. The sudden flashes and bright display are very dangerous to the road users and the problem is worse during night. Human eyes have to adjust to the sudden change in brightness and this can cause accidents. Figure 1.1 also showed a multiple electronic billboards that located in an

area which is make it an unhealthy environment as it increase the formation of visual pollution.

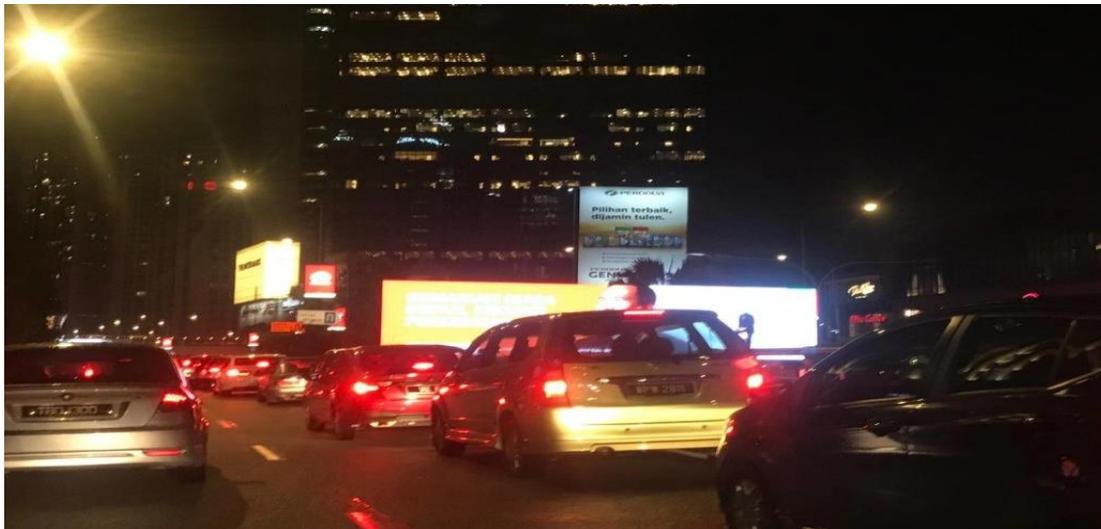


Figure 1.1: Electronic billboard at Jalan Tun Razak.

This is a fact that human's eye would react when the amount of light energy has entered the eye from the ambient environment. Therefore, the eye has to keep response to react with the white and bright light that come from the electronic billboard (Suzuki, et. al., 2019). The eye took time to react with the impact of sudden glare and the driver would not has full attention to the car in front. This would cause accident although just a few seconds of reaction. Moreover, when the driver has passed the electronic billboard, the eye took time again to adapt the night condition of the road and this might put the driver in danger again. Therefore, the electronic billboard that having at Jalan Tun Razak not only serve the purpose to provide information for a product or service but also bring adverse effect to the drivers nearby. This is the visual pollution that caused by the outdoor advertisement in real scenario.

Billboard can be seen in the light of a structure for display advertisement information and beautification of the environment. In most of the country, the billboards are commonly found along the highway and is functioning as advertisement that display information and at the same time, their unique appearance has added some beautification to the environment.

The management of billboards in Wilayah Persekutuan Kuala Lumpur and Selangor are essential to contribute on the beautification of environment. These are vital as they are permanent and imposed at an area. These billboards are different with television or the printed media, they force us to look at them because they are part of the fabrics of the environment and can take on a life of their own. In fact, most of the older billboards and signboards create beautiful effect through chance and time, reflected, cast interesting shadows and etc. Billboards today provide an opportunity for improving and enhancing the beautification of the environment and thus, increase the quality of the landmark in the specific area.

Unfortunately, the lack of management on billboard and signboard in Kuala Lumpur and Selangor has become one of the contributors to visual pollution. The number of billboard and signboard to be set up at a same area is not well managed and is not properly plan on their distance between two billboard and signboard. Figure 1.2 showed the improper management of installation of billboards along the Duke Highway at Selangor. This study discovered that some area are having five to six billboards and signboards at a same area which is not appropriate to the environment. Therefore, these billboards and signboards could not function as a medium to advertising as the road users could have the enough time to read on the several advertisements at a same time. The improper management for the installation of billboards and signboards in an area has also critically affected the landmarks of that area. This could decrease the reputation of our country when tourist are travelling in that area.



Figure 1.2: Unorganized billboards at NKVE highway

Not only the unorganized billboards could cause the visual pollution, the abandoned billboards did as well. It is no doubt to say that billboard and signboard can help in the environmental beautification. However, some billboards and signboards have its own life span. Some of the billboards and signboards could last forever and enjoy by next generations but this fact does not apply to every billboards and signboards (Bankole, 2013).

In Wilayah Persekutuan Kuala Lumpur and Selangor, there are a lot of billboards that left abandoned. This abandoned billboard is located just beside the highway where can get the attention of the public easily. This phenomena is not healthy as it is seriously affect the beautification of the environment. The abandoned billboard should be removed by the local authorities instead of just leaving abandoned in this area. As mentioned above, the most common and critical source of visual pollution in the form of advertising at urban areas are signboards and billboards and this study on visual pollution have started in 1983 by researchers such as Ashihara. Therefore, the management of billboard should be improved and the initiate to strengthen the management skill in billboard installation must be taken.

This issue has also happened for the signboards installation in our country. This is the fact that every shop lot is having their own signboards for their advertising purpose on their products and services. Signboard is an essential item for every business if they want to let public to know about their shops and products. However, the lack of management in signboards installation has become the contributor to visual pollution. As we can see in our country, it is noticeable that every signboard has its own design, shape, size and location. The signboard is allowed to install but without proper management on their installation location. It has caused the signboard installation to be untidy and not uniform and that could affect the beautification of that area and hence, causing the visual pollution.

This unhealthy phenomena proved that placement of billboards and signboards are relatively important. If the placement of the billboards and signboards are organized, then it could greatly reduce the visual pollution in that area. The World Health Organization (WHO) defined the visual pollution as limited to situations in which the outer ambient atmosphere contains materials in

concentrations which are harmful to human being and environment. Therefore, this unorganized billboards are considered to be harmful as it is not manage well and messy. In order to overcome this problem, the best solution is to determine the best placement distance and improve in the management of the installation of billboards and signboards.

In Malaysia, the Malaysian Code of Advertising Practice is a fundamental part of the system of control by Malaysian advertising regulates its activities. The Code has been drawn up by organizations representing advertisers, advertising agencies and media. It is administered by the Advertising Standards Authority Malaysia (ASA) whose members are drawn from the Malaysian Newspaper Publishers Association, Association of Accredited Advertising Agents, Malaysia, Malaysian Advertisers Association, and the Media Specialists Association.

This code is the regulation of commercial advertising. It applies to all advertisements in our country. For the installation of outdoor advertisements, the applicants should fulfill the requirements that set by the Malaysian Code of Advertising Practice.

It cannot be denied the fact that our country do have a very complete and detail code of advertising practice that help to monitor the advertising billboards and signboards. However, we cannot minimize or control the negative impact of visual pollution by having the details advertising code of practice only. This is because the root cause of causing visual pollution is by the installation of billboards and signboards while the content of advertising is only the minor contributor to visual pollution. As we can see, every country has its own guidelines on the installation of billboards to maintain the harmony of the country and to reduce the impact of visual pollution.

Therefore, Malaysia should has its own guidelines, policy, rules and regulations on the installation of billboards and signboards that emphasizes on the placement and management of the installation. This is the only way to reduce raising visual pollution in Wilayah Persekutuan Kuala Lumpur and Selangor. In these two area, it is an undeniable fact that there are many billboards were installed at the slope

beside the highway. This is not only causing visual pollution but also jeopardize the road safety to the road users nearby. This is the reason why we must propose and implement a new guideline for the installation of billboards and signboards as the location of billboards and signboards installation are relatively important. .

It is no doubt to say that most of the public in Wilayah Persekutuan and Selangor or even in whole Malaysia have less understanding on what is visual pollution. In the education path from primary to tertiary education, only major pollution such as water pollution, air pollution and sound pollution have been taught. Therefore, this is a fact that the public in Malaysia including Wilayah Persekutuan Kuala Lumpur and Selangor are lack of awareness on the visual pollution. This is a very serious problem that faced by the world that visual pollution is getting worse by the day. This is crucial as no one would know that visual pollution could jeopardize the road safety and the most important fact is that none of the public understand that the simple things such as the billboards and signboards that surrounding us are one of the source of visual pollution. Our country is developing day by day and the issue of visual pollution is raising together with the development. A developed area will definitely full of crowd and advertising in term of billboards are being one of the methods to promote a product that believed can attract the public's attention efficiently. Therefore, the public awareness on visual pollution is very crucial in managing visual pollution.

1.2 Aim and Objectives

The aim of this study is to analyze the impact of visual pollution caused by outdoor advertisements in Wilayah Persekutuan Kuala Lumpur and Selangor. The objectives of this study is as follows:

1. To study the policy and rules that governed the billboards and signboards installation.
2. To determine the public perception on the visual pollution in term of billboards and signboards.

3. To propose solutions to minimize the visual pollution and increase public awareness on the visual pollution.

1.3 Benefits of the Research

Through this research, the visual pollution by outdoor advertisements can be measured. The number of outdoor advertisements in Wilayah Persekutuan Kuala Lumpur and Selangor can be determined and hence, this research can determine the level of visual pollution.

Besides that, this research can contribute in reducing the visual pollution in Wilayah Persekutuan Kuala Lumpur and Selangor. After the level of visual pollution has been determined, a counter measure can be taken to reduce this negative impact.

Furthermore, this research is going to increase the public awareness on visual pollution. This is believed that the public in Wilayah Persekutuan Kuala Lumpur and Selangor has less understanding on visual pollution. Through this research, public can understand the basic knowledge on visual pollution by outdoor advertisements.

Lastly, this research can help to reduce the impact of visual pollution on road traffic safety issue. This research is going to study in details on the policy, rules and regulations that governed the outdoor advertisements installation in Wilayah Persekutuan Kuala Lumpur and Selangor. With the proper guidelines, the negative impact of visual pollution by outdoor advertisements can be reduced.

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