

## Distribution of Cigarette Marketing and Cigarette Advertising Around Schools In Badung Regency

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### ABSTRACT

Smoking behavior in adolescents is one of the global problems faced by most countries in the world. The prevalence of smoking among youth aged 10-14 years has increased from 9% in 1995 to 17.4% in 2021. This study aims to determine the distribution of marketing of cigarette products and cigarette advertisements around schools in Badung Regency. Schools were targeted for mapping starting from the elementary, middle and high school/vocational school levels. Cigarette traders and advertisements are carried out by applying a Geographic Information System (GIS). The results showed that most of the observed schools had cigarette sellers around the school. In addition, cigarette advertisements in the form of banners can be found attached to shops or stalls near schools. Cigarette sellers and advertisements are mostly found around Junior High Schools (SMP). The closest distance between cigarette sellers and cigarette advertisements found is 100 meters from the school. The high smoking behavior among young people is related to the density of sales (retail) of cigarettes and the proximity of retail to schools or homes. In addition, cigarette sellers also display attractive tobacco promotions (Tobacco advertisements, promotions and sponsorships/TAPS) at points of sale (Point of Sale/PoS), placed specifically at certain locations and times of purchase. This will increase the chances of smoking initiation among adolescents and hinder smoking cessation efforts for active smokers.

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## 1. INTRODUCTION

Smoking is one of the global problems faced by most countries in the world because of its impact on health. Based on the 2018 WHO report, more than 6 million deaths per year in the world are caused by tobacco consumption, while around 890,000 deaths are caused by exposure to cigarette smoke. Cigarette consumption in Indonesia is among the highest in the world with the number of adult smokers of 61.4 million. The smoking population is not only adults; there are two thirds of the adult male population in Indonesia who smoke, and one third of boys aged 13-15 years already smoke. The prevalence of smoking among young people aged 10-14 years has increased from 9% in 1995 to 17.4% in 2010. The increasing prevalence of smoking among young people will have an impact on social and economic burdens in the future, especially to deal with chronic disease caused by smoking.

Studies show that the high smoking behavior among young people is related to the density of sales (retail) of cigarettes and the proximity of retail to schools or homes. In addition, cigarette sellers also display attractive tobacco promotions (Tobacco advertisements, promotions and sponsorships/TAPS) at points of sale (Point of Sale/PoS), placed specifically at certain locations and times of purchase. This will increase the chances of smoking initiation among adolescents and hinder smoking cessation efforts for active smokers<sup>1</sup>.

Badung Regency is one of the districts with a high density in the Province of Bali. Badung Regency has adopted a smoke-free area regulation (KTR). The implementation of KTR must be supported by other policies, especially to reduce exposure to cigarette products and early initiation of smoking in young people so that efforts to control the dangers of smoking can be carried out in a comprehensive manner. This study aims to describe the mapping of cigarette marketing points around schools. It is important to do this in order to obtain information that will assist in making decisions on the development and adoption of retail policies.

## 2. METHOD

This research is a cross-sectional study to map cigarette advertisements and traders around schools. This research was started from October to December 2022. The research locations were sales locations around elementary, middle and high schools in Badung Regency. Research variables to be collected include location and type of cigarette marketing around the school (type of store, distance, location point from school). The sample in this study consisted of 30 schools in Badung district, namely 10 elementary schools, 10 junior high schools and 10 high school schools. The point of sale location is described by mapping using a Geographic Information System. Data was also collected through in-depth interviews with selected cigarette sellers.

## 3. RESULTS AND DISCUSSION

The research was conducted in Badung Regency, which is spread over 6 sub-districts, namely North Kuta, South Kuta, Abiansemal, Petang, Mengwi and Kuta sub-districts. Data from all schools from the elementary, junior high and high school levels were collected and then stratified randomization was carried out to select schools in each sub-district. A total of 10 SD, 10 SMP and 10 SMA/SMK were observed and spread across all sub-districts in Badung Regency. The following is a description of the distribution of research observation points.

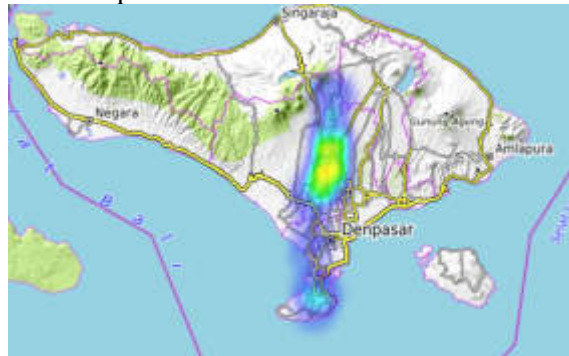


Figure 1. Badung Regency

After the data has been collected, data analysis is then carried out to see an overview of the distribution of cigarette advertisements and cigarette traders around the school. Data was collected using KoboToolBox so that it was possible to collect coordinate data from advertisements and cigarette sellers around the school. The following is an analysis of the distribution of advertisements and cigarette traders around schools.

Table 1 Percentage of Advertisements and Cigarette Vendors Around Schools in Badung Regency

Variable	Frequensi (n)	Persentase (%)
Advertisement	122	58,94
Seller	85	41,06

Based on the results of the study it was known that from the results of observations the percentage of cigarette advertisements that were observed was 58.94% and cigarette traders around schools were 41.06%. There are still many schools surrounded by advertisements and cigarette traders. The results of many studies show that smoking behavior among children and adolescents is closely related to the density of cigarette sellers which are located close to schools or residential homes.

Table 2 Distance of Cigarette Advertisements and Cigarette Sellers from Schools

Distance	Frequensi (n)	Persentase (%)
100 meters	53	25,6
200 meters	30	14,49
500 meters	77	37,2
1000 meters	47	22,71

The description of the distance between advertisements and cigarette sellers around schools is at most 100 meters. This illustrates that the access of children and adolescents to advertisements and cigarette traders is very close. Advertising is a form of promotion that is widely known and most commonly encountered. This is possible because the existence of advertising can reach the wider community. Advertising is also a very important promotional instrument. Advertising is the strategy of the cigarette industry in attracting novice smokers, namely children and adolescents.

Table 3 Types of Cigarette Sellers Around Schools

Type of Seller	Frequensi (n)	Persentase (%)
Convenience Store	62	72,9
Minimarket	17	20
Supermarket	6	7,1

Many advertisements for cigarettes and cigarette products are marketed at cigarette sales points. From the research results, it was found that the most common type of point of sale was stalls, followed by minimarkets and supermarkets.

Table 4 Display of Cigarette Products from Outside the Point of Sale

Cigarette Display	Frequensi (n)	Persentase (%)
Yes	74	87
No	11	13

Smoking behavior begins during childhood and adolescence. Most teenagers understand the harmful effects of cigarette smoke. However, the strategy of the cigarette industry is also very aggressive in advertising and promoting cigarette products, especially among teenagers. Teenagers are the main target of the cigarette industry as cigarette beginners.

At the point of sale, cigarette products are displayed in a special window. In most stalls, cigarette products are displayed in mini glass showcases. This is used as an attractor for consumers of children - teenage children to buy cigarettes. Meanwhile, in minimarkets and supermarkets, cigarette products are displayed right behind the cashier, so that every buyer can see them. At 87% of cigarette sales points, cigarette products can be seen from outside the point of sale, thereby raising the curiosity of children and adolescents and facilitating access for youth to buy cigarettes.

Table 5 Types of Cigarette Advertisements Around Schools

Type of Advertisement	Frequensi (n)	Persentase (%)
Spanduk	109	89,3
Bilboard	6	4,9
Poster	6	4,9

Advertising and promotion of cigarettes at sales points, especially around schools, contributes to increasing smoking initiation among young people and inhibits smoking cessation efforts for active smokers. From the results of the research conducted, 89.3% of the types of cigarette advertisements that were found were banners, especially those displayed at points of sale. There are also cigarette advertisements in the form of billboards and posters. In addition, the tobacco advertisements posted are designed in such a way by the tobacco industry so that they attract and encourage teenagers to start trying and then become novice smokers.

#### 4. CONCLUSION

Based on the research results obtained, it can be concluded that most schools in Badung Regency are surrounded by advertisements and cigarette vendors, where the closest distance from the school is 100 meters. The suggestions based on the results of this study are recommended for the Badung Regency Health Office to carry out advocacy to the Badung Regency Government regarding the

initiation of policies on advertising and selling cigarettes. It is necessary to control cigarette advertisements around schools that do not have a permit.

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