



## Specific vs Unspecific Smoke-Free Regulation: Which One is More Effective?

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### ABSTRACT

Tobacco kills up to half of its users, and smoking prevalence and tobacco exposure among Indonesian youth are increasing. A comprehensive ban on Tobacco Advertising, Promotion, and Sponsorship (TAPS) is a recommended tobacco control measure. Thus, this study aimed to analyze and compare political economy factors that contribute to the effectiveness of the TAPS ban implementation in Surabaya and Kulon Progo. In-depth interviews and a focus group discussion were conducted, recorded, transcribed, then analyzed using thematic analysis. We find that the role of local government was pivotal in creating and implementing regulations for tobacco control, while the leaders' will and capability were also essential. However, the COVID-19 pandemic had limited all tobacco control measures in both studied districts. Furthermore, the lack of political will and low support from the political parties are the several factors hindering tobacco control measures at the district level, including TAPS ban enforcement. We also find that there is a need to strengthen the understanding of local government, society, and other related stakeholders toward the urgency of the TAPS ban. Further studies calculating the impact of the total TAPS ban on local revenue and the potential benefit of a total TAPS ban are urgently needed for advocating total TAPS ban implementation in a broader scope of the country.

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## INTRODUCTION

Direct tobacco use has led to more than seven million annual tobacco-related deaths across the world.<sup>1,2</sup> More than 80% of tobacco users live in low- and middle-income countries.<sup>3</sup> In 2018, there were 75 million smokers in Indonesia and at least 75% of the total Indonesian population were passive smokers. Smoking prevalence among Indonesians aged 10–18 years increased from 7.3% in 2013 to 9.1% in 2018, and the increasing smoking prevalence in this age group will aggravate the social and economic burdens of chronic disease in the future.<sup>4-6</sup>

The release of the Framework Convention on Tobacco Control (FCTC) 2003 declared a global commitment to reduce smoking prevalence and banning Tobacco Advertising, Promotion, and Sponsorship (TAPS). The TAPS refers to all forms of direct and indirect tobacco commercial communications and any contributions to events or activities that may affect tobacco product promotion.<sup>7</sup> There have been many studies in different countries enforcing the TAPS bans.<sup>8</sup> Several studies reported that tobacco marketing regulations and the TAPS ban policies were successful in significantly reducing smokers' awareness of pro-smoking cues in the United States, the United Kingdom, Australia, and Canada. While this finding was similar across different Socio-Economic Statuses (SES), banning arts sponsorships and billboard advertising sharply reduced the awareness among high SES groups as compared to low SES groups. Banning the TAPS for more than 10 years in five of seven Latin American countries prevented 50,000 deaths and 364,000 cases of tobacco-related illness and saved more than US\$7 billion.<sup>9</sup> The authors also estimated that 100% compliance with this regulation in the seven countries would have saved approximately US\$15 billion.

The TAPS policy implementation varies across Indonesian regions based on culture and political power. This study was conducted in two Indonesian districts or cities to obtain comprehensive evidence of the TAPS policy enforcement by comparing the two locations. Surabaya was chosen meticulously as this city has profited from tobacco advertisement although it has a tobacco control policy. In 2020, 13.35% of the total Surabaya advertisement income was from cigarette commercial tax revenue. Megatsari et al confirmed this figure

where at least 300 large and medium-sized billboards were displayed around education and public areas.<sup>10</sup> Therefore, it appears that the implementation of tobacco control policy is powerless to regulate the TAPS in Surabaya.

In contrast, Kulon Progo was chosen to represent a region featuring excellent implementation of the tobacco control policy. In Kulon Progo, the anti-TAPS policy has been expanded to Outdoor Tobacco Advertisements (OTA) and other forms of the TAPS, thus resulting in the Kulon Progo government receiving zero cigarette advertisement tax. Therefore, Kulon Progo was a progressive city in tobacco control policy implementation.<sup>11</sup> Kulon Progo has also demonstrated more progressive TAPS policy implementation than Surabaya, as Kulon Progo features supporting regulations, such as the regulation and instructions of the regent presented in Table 1. By comparing the TAPS policy enforcement in these two cities, this study obtained evidence and identified problems related to the TAPS ban enforcement. This study also presented both structural and agency diagnoses of the supporting and hindering factors and the challenges the local governments faced when implementing the TAPS ban.

Considering the tobacco problem in Indonesia, there is an urgent need to implement an effective smoke-free policy featuring a strict TAPS ban to protect the community, especially young people, from cigarette smoke exposure. Although the policy has been mandated for local Indonesian governments, the TAPS ban enforcement varies across regions. This study was based on three research gaps: 1) Limited studies have analyzed the TAPS prohibition enforcement dynamics; 2) Studies on the slow progress of Indonesian tobacco control policies have not involved multi-sectoral stakeholders as respondents; 3) Few studies have accommodated the local government perspectives related to tobacco control social studies. This study aimed to analyze and compare political economy factors that contribute to the effectiveness of the TAPS ban implementation in Surabaya and Kulon Progo.

## MATERIAL AND METHOD

This qualitative study investigated the TAPS ban implementation in Indonesia, specifically at the sub-national level, by conducting 17 in-depth interviews and a Focus Group Discussion

(FGD). This study followed the conceptual framework of Campos and Reich in identifying a more effective means of health policy implementation.<sup>12</sup> Following the framework, this study involved six stakeholders working closely on tobacco control and the TAPS ban enforcement: 1) Interest groups that may resist or promote policy implementation (health professionals and tobacco control experts); 2) Bureaucrats who are decision-makers and implementers within the system (District Health Officers and the Civil Service Police Unit); 3) Financial decision-makers who manage the financial decisions within the system (the Financial and Asset Management Board); 4) Political leaders to ensure their commitment to policy implementation (the Regional House of Representatives and Local Government Representatives); 5) The intended policy beneficiaries (communities and organizations concerned with health and tobacco control issues); (6) External actors who may fund and influence health policy implementation (donors).

Seventeen informants were selected using the Campos and Reich conceptual framework for virtual interviews spanning approximately 60 minutes.<sup>12</sup> Each informant was invited to the interview, which contained an informed consent form and interview guidelines containing a set of initial questions. The other five respondents were invited to an online FGD, which was conducted as a means of triangulation and was led by a moderator following FGD guidelines. Both the interviews and FGD were conducted in Bahasa Indonesia and were recorded to be transcribed as the raw data.

The data were analyzed using a thematic analysis following Braun and Clarke.<sup>13</sup> First, the

raw data were processed in data immersion where the transcripts were read for immersion and familiarization with the contents. Second, patterns and themes were identified from the transcripts and the data were classified based on the identified themes. In the third step, the themes were reviewed and defined, including the sub-themes that may have potentially appeared during the data analysis. In the final step, a narrative discussion was drafted based on the identified themes and the existing literature was integrated into the analysis.

## RESULTS

The interviews and FGD have been conducted to collect different stakeholders' perspectives as summarized in Table 2. Indonesia has neither ratified the FCTC nor regulated the TAPS ban even at the national level. In Indonesia, the TAPS ban is typically implemented as part of the smoke-free policy. Although the integration has led to the TAPS ban being enforced only in areas regulated by the general smoke-free policy (schools and offices), there is no obligation to expand the TAPS ban scope into the broader public space. Most Indonesian regions have used regulations derived from Government Law No. 109 of 2012 on the Control of Materials Containing Addictive Substances in Tobacco Products in the Interest of Health. This government regulation includes a mandate for local governments to regulate the TAPS and acts as the only legal document used by sub-national governments for enforcing the TAPS ban and is stated below:

*"Further provisions regarding the procedures for controlling tobacco product sponsors as referred to in Article 36 and Article 37 shall be regulated by the Sub-national Government."*

**Table 1. Comparison of the Revenue and Regulations Related to the Tobacco Control Policy in Surabaya and Kulon Progo**

Aspects	Surabaya	Kulon Progo
Local Regulation	- First regulation: Local Regulation No. 5 (2008) - Revision: Local Regulation No. 2 (2019)	- First regulation: Local Regulation No. 5 (2014)
Further Local Government Laws	Mayor regulation No. 110 (2021)	- Regent regulation No. 03 (2015) - Regent instructions No. 01 (2015) - Regent regulation No. 15 (Revision 2020)
Revenue from Tobacco Advertisements in 2020	Rp. 14.711.864.000	Rp. 0

Source: Primary Data, 2021

Despite the mandate for local government enforcement of the TAPS ban, only seven districts or cities have implemented a comprehensive TAPS ban in a broader space in addition to the established smoke-free areas: Kulon Progo, one of the two study locations, and Bogor City, Depok City, Padang Panjang, Bangli, Klungkung, and Denpasar City. Few regions have included the TAPS ban in their policy, which indicated the confusion and divergent understanding of the urgency of enforcing the TAPS ban beyond the areas regulated by the general smoke-free policy.

Both the interviews and FGD suggested that Kulon Progo and Surabaya have regulated smoke-free policies. Kulon Progo has implemented Regional Regulation No. 5 of 2014, which states how and where tobacco advertisements may and may not be installed, restrictions on tobacco sponsorship, and area expansion from smoke-free areas to wider outdoor areas, which was described as follows:

*"Local governments control tobacco product advertisements on outdoor media."*

The Kulon Progo Regional Regulation was also strengthened by the regulation of the regent, which acted as the legal basis for implementing the regional regulation. Kulon Progo has implemented Regent Regulation No. 15 of 2020, which is a revision of Regent Regulation No. 3 of 2015 that imposed a strict TAPS ban instead of a total TAPS ban, which an informant described as follows:

*"Local governments control the promotion and/or display of cigarettes and/or other tobacco products, which is done in such a way so that they are not seen directly by consumers."*

In Surabaya, the smoke-free policy was regulated in Regional Regulation No. 2 of 2019, which resulted from a revision of Regional Regulation No. 5 of 2008. Despite Surabaya being the first city in Indonesia to implement the smoke-free policy more than 10 years ago, the decree of the mayor detailing the law to support the existing regional regulation of smoke-free areas in Surabaya had not been signed when this study was conducted. The TAPS were easily noticed in Surabaya, even on roads close to schools. The absence of a total TAPS ban in Surabaya has led to many TAPS in public areas

that were not included in the smoke-free policy regulation areas. Some Surabaya informants stated that the area with the most frequent smoke-free policy violations was the office, involving both public and private offices, which was described in the quote below. Few violations were recorded for schools, urban parks, public transport, and other public facilities as these places were more open and easier to monitor.

*"I see that the most difficult, or the worst implementation of the smoke-free policy, is in the office area. Both public and private offices have not been able to implement the policy as described in the local regulation..."*

In addition to existing regulations, three main themes were identified and presented in Table 3: 1) Challenges faced by local government in enforcing the TAPS ban; 2) Stakeholders' perspectives; and 3) Factors that supported and hindered policy implementation.

The three main issues in the TAPS ban enforcement in Surabaya and Kulon Progo were: 1) misunderstanding of the smoke-free policy and the TAPS ban; 2) the wide range of promotion strategies by the tobacco industry; 3) the varied degree of political support for the TAPS ban. Problems related to geographic diversity were recorded only for the TAPS ban enforcement in Kulon Progo due to its wide area with various geographical characteristics featuring both mountainous and coastal areas, which are not easily accessible.

There was a misunderstanding of the smoke-free policy and the TAPS ban. The policy was perceived as forbidding all forms of smoking activities and applying a total TAPS ban instead of regulating areas that allowed smoking activities and restricting the TAPS. This misunderstanding was exacerbated by low awareness of how pivotal tobacco control is for protecting the younger generation, economic improvement, and reducing non-communicable diseases.

*"...It becomes an obstacle not only in the city but also across the province where they don't have a good understanding (toward the policy) ..."*

*"...Lack of understanding and socialization toward how pivotal passive smoking protection is..."*

**Table 2. Perspective due to Implementation of Smoke Policy Based on Characteristics Informan**

<b>Informant</b>	<b>Surabaya</b>	<b>Result</b>	<b>Kulon Progo</b>	<b>Result</b>
<b>Bureaucrats</b>	Regional secretary in the law department, District health officer, Development planning agency at sub-nation level, Civil service police unit	Needs for clearer regulation of the TAPS ban, the smoke-free policy was quite difficult to apply due to the absence of a legal basis. The regulation toward TAPS ban in Surabaya needs to be improved	District health officer, the head of law department, Civil service police unit	Important to continuously socialize TAPS ban to the society
<b>Financial Decision</b>	The financial & asset management board	TAPS-related revenue was not significant. TAPS steadily contributed to only less than 4% of local revenue since 2015. If there is a rule, it can be implemented	The financial department	The strict TAPS ban in Kulon Progo has decreased the advertising tax revenue only by 25% or 0.53% from the total local tax revenue
<b>Beneficiaries</b>	CTFK (Campaign for Tobacco-Free Kids)	Tobacco control measures need political support	The kids' forum, healthy Jogja without Tobacco	Both leadership and politics played a significant role in TAPS ban enforcement in this district
<b>Academics</b>	Health professional (Lecturer of Faculty of Public Health Airlangga University)	Total TAPS ban needs to be implemented and required strong commitment from regional leaders	Manager advocacy Muhammadiyah STEPS Muhammadiyah Yogyakarta University, Health expert faculty of medicine Gajah Mada University	The tobacco control issue is strongly influenced by political actors
<b>Political Leader</b>	The Vice of the Regional House of Representative	Conflict interest personal in legislation influences policy		
<b>Donor</b>	The head of tobacco control support center	Intervention from cigarette industry has an impact towards the implementation of total TAPS ban	Technical support the union Indonesia (International NGO)	Tobacco industries are very progressive and strategic to place their advertisement

Source: Primary Data, 2021

Table 3. Themes and Sub-Themes

Themes and Sub-Themes	Key Quotes (Examples)
<b>Challenges Faced by Local Government in Enforcing the TAPS Ban</b>	
Misunderstanding of the smoke-free policy and the TAPS ban	<i>"Local government and related agencies don't have the same perception about tobacco control."</i>
The wide range of promotion strategies by the tobacco industry	<i>"...Another strategy is by giving promotion banners with the store names..."</i>
The varied degree of political support for the TAPS ban	<i>"...in Surabaya (there are) certain political parties that are more powerful and against the issue of tobacco control..."</i>
Problems related to geographic diversity	<i>"...The main obstacle is controlling (TAPS) in the outback, especially in the north (part of Kulon Progo) ..."</i>
<b>Stakeholders' Perspectives</b>	
Health professionals and tobacco control experts	<i>"...Actually, we want to apply a total TAPS ban. It will happen if there is a strong commitment from the leader of the region..."</i>
Beneficiaries	<i>"...Leadership and political will are the most crucial..."</i>
District Bureau of Law	<i>"...Toward tobacco policies, these tobacco actors intervene and coloring policies..."</i>
Civil Service Police Unit	<i>"...(We) found there was ignorance, then the team educated the business owner (regarding TAPS ban)..."</i>
Financial and Asset Management Board	<i>"...The income from TAPS is not significant but we haven't studied yet what the impact will be..."</i>
Regional House of Representatives	<i>"...(The) regional income will not be significantly affected by the policy..."</i>
Health officers	<i>"...This policy does not prohibit, only strictly limits..."</i>
Donors	<i>"...Total TAPS ban is not (implemented) in all regions because the intervention from industry is huge..."</i>
<b>Supporting and Hindering Factors in Policy Implementation</b>	
<b>Supporting factors</b>	
Alliances concerning the tobacco control issue	<i>"...Having an informal alliance..."</i>
Public support for the smoke-free policy	<i>"...We surveyed (the) society's support in Kulon Progo, (and) the results (were) up to 85%..."</i>
Technical assistance from academicians	<i>"...from academia encourages the strengthening of smoke-free areas..."</i>
Technical and financial support from International Non-Governmental Organizations (NGO)	<i>"...NGO give technical and financial support for (the) implementation (of) smoke-free areas..."</i>
Political will	<i>"...(The) Success occurs because of the political will of the leader in those regions..."</i>
<b>Hindering Factors</b>	
Limited human resources in the District Health Office working on tobacco control	<i>"...Our limitations (is) for (conducting) socialization because we have to do (the) other programs as well..."</i>
Small budget for policy implementation	<i>"...Our capacity budget is not much, so we use gradual management..."</i>
Promotion and replacement within the local government	<i>"...When the process was still ongoing, the person was moved to another place. Then we had to start from the beginning..."</i>
The COVID-19 pandemic	<i>"...A significant factor hindering the process of major regulation toward smoke-free areas was COVID-19 pandemic..."</i>

Source: Primary Data, 2021

Tobacco industries have used myriad promotion strategies and studied the regulations and subsequently searched for loopholes to place their advertisements. These progressive attempts have been applied

carefully, hence leading to the appearance of advertisements in both Surabaya and Kulon Progo, which were described as follows:

*"...TAPS (activities) are very progressive and strategic. They are targeting crowded locations..."*

Political parties played a significant role in deciding whether the regulation was approved. Nevertheless, conflicts of interest among political parties, particularly those affiliated with the tobacco industry, remained common. In some cases, the TAPS ban approval was potentially hindered by the different perspectives of political opponents, which the informants described as follows:

*"...Our struggle becomes more challenging in the legislative..."*

In addition to political parties, regional leaders' political will influenced the magnitude of support for banning the TAPS. In Kulon Progo, the strong political commitment of the regent exerted a positive influence, which manifested in the successful implementation of a strict TAPS ban. The will of the former regent to promote health through tobacco control measures aided smooth enforcement of the TAPS ban by the regent and related agencies. On the other hand, the Surabaya technical guide for implementing the TAPS ban had not been signed when this study was conducted. Furthermore, replacements within the Surabaya municipal government and the refocusing activities of the government during the COVID-19 pandemic resulted in the smoke-free policy being excluded from the priority agenda, which was summarized as follows:

*"...When the mayor is elected, we have to adapt to what is wanted..."*

The health professionals urged the implementation of a total TAPS ban, which was an intention that required strong commitment from the regional leaders. The beneficiaries stated that tobacco control measures required a good understanding of the TAPS ban as a means of gaining stronger commitment from the mayor or regent and the Regional House of Representatives. The perspectives of the Regional House of Representatives on the significance of both public and political support for tobacco control confirmed this.

The Surabaya Civil Service Unit suggested that there was a need for clearer regulation of the TAPS ban. As the implementer of this regulation, the unit discovered that the application of the current smoke-free policy was quite difficult due to the absence of a legal basis. The unit was only able to enforce the TAPS ban in smoke-free areas

but was unable to prevent the TAPS in other areas not regulated in the current policy. An informant described the situation as follows:

*"...Regarding the Regional Law 05/2019, there is no TAPS ban regulation, (there is) only the policy from the mayor (stating) that TAPS must have distance from smoke-free areas. We follow the rules that are enforced, (but) better-written rules are needed because we are the implementers..."*

Both the health officers and external actors suggested that the TAPS ban regulation, for example, the bans on OTA and no advertising and display at points of sale in Surabaya, required improvement. The TAPS ban has been in effect in smoke-free areas only, yet there is no regulation outside those areas, which was described as follows:

*"TAPS ban is regulated for smoke-free areas."*

The financial decision-makers of the Financial and Asset Management Board reported that the TAPS-related revenue was not significant. To challenge tobacco control in Surabaya, the tobacco industry raised the issue of a TAPS ban affecting the economy, but Financial and Asset Management Board data revealed that the TAPS consistently contributed to less than 4% of local revenue since 2015.

*"...Actually, our goal is total TAPS ban, but the regional government has rejected (total TAPS ban) due to (the potential decrease of) local revenue..."*

The beneficiaries stated that leadership and political will were important in the TAPS ban enforcement. This opinion was confirmed by the tobacco control experts, the district Bureau of Law representing the Kulon Progo local government, and the external actors. The parties mentioned that both political actors and significant interference from big tobacco companies strongly influenced the tobacco control issue. The Civil Service Police Unit reported that continuous socialization of the TAPS ban was important, as they determined that several local vendors continued to advertise tobacco products at their stalls due to their ignorance of the TAPS ban regulation.

The Kulon Progo district health officers emphasized that the regulation did not entirely ban the TAPS but only strictly limited them. The Financial and Asset Management Board data demonstrated that the strict TAPS ban in Kulon Progo had decreased advertising tax revenue by

only 25% or 0.53% of the total local tax revenue. The strict TAPS ban in Kulon Progo was imposed as a means of prioritizing public health and did not significantly affect revenue. The local revenue trend continued to increase as the government collected revenue from other potential sources.

The established alliance concerning the tobacco control issue was a prominent enabler of smoke-free policy implementation in the study locations. Similar to its smoke-free monitoring team, the informal alliance in Surabaya comprised multidisciplinary experts, health professionals, civil society organizations, and Non-Governmental Organizations (NGOs). This alliance not only focused on supporting policy implementation but also advocated a total TAPS ban to the government as a means of strengthening the existing smoke-free policy. Another enabler in Surabaya was public support for the smoke-free policy, which was successful in encouraging legislators to accept the proposed smoke-free policy starting in 2017. Academic support also played a significant role in providing evidence. Therefore, the approved smoke-free policy in Surabaya was based on reliable evidence despite the current absence of strict TAPS ban enforcement.

Similar to Surabaya, Kulon Progo received technical assistance from academicians who performed public surveys on support for tobacco control, which demonstrated that around 80-85% of society supported the implemented tobacco control measures. The other supporting factor in Kulon Progo was the technical and financial support from an international NGO focusing on preventing tuberculosis and lung diseases. Political will also conferred significant support for initiating a strict TAPS ban. The former regent directly led the movement from preparation to implementation, which led to the cessation of cigarette advertisements in the district. This commitment continued when the new regent was elected in 2019 and was accompanied by regular socialization to re-emphasize public understanding of the regulation and youth involvement to represent the community's role in tobacco control, which an informant remembered as follows:

*"...In 2019, we began to involve regeneration in tobacco control, (involving) young people in Kulon Progo with activities started from their surroundings."*

The tobacco control alliances and activists in both Surabaya and Kulon Progo expanded their advocacy area by linking the urgency of tobacco control measures with related health issues. For example, they advocated the urgency of a strict TAPS ban to support the aim of the government to address stunting. Moreover, the positive impact of banning the TAPS was promoted to bolster the efforts of the government in creating child-friendly cities or districts.

In both Surabaya and Kulon Progo, the main hindering factor against tobacco control measures was the limited human resources in the District Health Office, particularly during the pandemic. In addition to tobacco control, the District Health Office was required to manage numerous other programs. Another limitation faced by the District Health Office was the small policy implementation budget, which was described as follows:

*"...in the District Health Office, one person is not only responsible for a single agenda but also multiple programs..."*

Promotion and replacement within the local government was another factor affecting sub-national tobacco control enforcement. The personnel who were transferred out were not replaced by those with the same knowledge, delaying the regulatory advocacy process and implementation.

Currently, only one national regulation has mandated a TAPS ban but has not endorsed a total TAPS ban. This absence of strong national-level regulation might lead to regions being unable to directly regulate a TAPS ban, thus hindering sub-national tobacco control. A description of the issue was as follows:

*"Regulations at the national level are not strong, so that regulations at the regional level become chaotic and confusion arises."*

The COVID-19 pandemic, which began in March 2020, was identified as an emerging obstacle to all tobacco control measures in general in both Surabaya and Kulon Progo. The pandemic has led to many local government departments switching their focus to addressing



this communicable disease. Furthermore, it did not merely concern workforce refocusing, but also involved the budget and priority agenda, which was summarized as follows:

*"...In 2020 we were affected by a pandemic so our activities declined..."*

## DISCUSSION

This study investigated the issues of Indonesian TAPS ban enforcement from the perspectives of different stakeholders and the supporting and hindering factors for a sub-national ban on the TAPS. The findings indicated that despite the existing smoke-free policy in the studied locations, the TAPS ban implementation varied. Evidently, a lack of political will was the main hindering factor in the TAPS ban enforcement while community participation played a significant role in advocating the TAPS ban policy.<sup>14</sup>

Many Indonesian districts or cities have implemented a smoke-free policy, but less than 10% of districts or cities have banned OTA.<sup>15</sup> Both Surabaya and Kulon Progo have smoke-free policies but the TAPS ban enforcement in these regions was influenced by differing TAPS ban advocacy processes. Kulon Progo has implemented a strict TAPS ban for both outdoor settings and smoke-free areas, but tobacco industry violations have been reported in its remote areas. In Surabaya, complex bureaucracy has delayed the signing of technical regulations for smoke-free policy implementation, while competing interests in OTA prohibition and refocused policies during the pandemic have weakened the TAPS ban enforcement in the city. The findings were in line with other studies reporting that the partial TAPS ban in Indonesia has resulted in potential governmental loopholes in terms of tobacco control measures, including complex bureaucracy and tobacco industry interference.<sup>15-17</sup>

This study determined that the TAPS ban enforcement was more feasible when a region had leaders with strong political will to support a TAPS ban. This was reflected by the success of Kulon Progo in banning the OTA and TAPS in smoke-free areas, which was due to the strong political will and excellent advocacy skills of the former regent. Nonetheless, several barriers influenced political will: in addition to sociocultural factors and the priorities of the

leaders, tobacco industry interference was considered one of the strongest barriers against increasing the interest of political leaders in the TAPS ban enforcement. Tobacco industry networks are well-established and have strong governmental links where Indonesia has demonstrated the highest tobacco interference index score in Southeast Asia.<sup>16</sup> Thus, tobacco industry lobbying and opposition have resulted in competing interests within political parties and difficulties in passing control legislation.<sup>9</sup>

Opposing this interference would require stronger collaboration across sectoral agencies as the District Health Office, the leading sub-national tobacco control sector, cannot impose the measures independently. For example, Regional Women Empowerment and Child Protection Agency (*Dinas Pemberdayaan Perempuan dan Perlindungan Anak*) support in implementing the smoke-free policy in Surabaya and Kulon Progo was evident considering that excellent smoke-free policy implementation is required to achieve the child-friendly district or city ideal.

The success of Kulon Progo in continuously implementing a comprehensive TAPS ban suggested the importance of gaining public support, specifically by overcoming indifference towards the TAPS ban enforcement. The potential decrease in household income and local revenue (*Pendapatan Asli Daerah*) was the most common argument used by the tobacco industry, which is in line with the findings of others.<sup>5,15</sup> Despite the low revenue from tobacco advertisements, this argument nevertheless led to competing interests among political actors and a lack of public support for banning the TAPS.<sup>16</sup> In contrast, academicians and community participation contributed significantly to the TAPS ban advocacy and implementation, specifically by providing evidence and technical guidance to the government, educating the community, monitoring and reporting violations, and assisting the smoke-free policy task force in enforcing the TAPS ban.

The significant impact of the strong tobacco control alliance and community participation observed in this study parallels to the study by Septono et al who also urged the implementation of a comprehensive sub-national TAPS ban instead of the current partial TAPS

ban.<sup>19</sup> Furthermore, continuous public education was essential for shaping perceptions of the TAPS ban based on several factors: the ever-changing nature of the TAPS, the existing opinion that the smoke-free policy aims to prohibit smoking activities, and the various means the tobacco industry has used to exploit loopholes in tobacco control measures.<sup>9</sup>

This study highlighted three potential areas for further research. The first gap concerns the local revenue obtained from the TAPS, which was reflected by the data demonstrating that the lack of support for implementing a total TAPS ban was caused by the potential decreased revenue upon such a ban. Some regions have proven that a total TAPS ban did not decrease their revenue significantly as they were still able to obtain revenue from other advertisement types, taxation, and other sources. Nevertheless, other regions might be unaware of this, hence there remains a need for further studies calculating the impact of a total TAPS ban on local revenue.

The second research gap is related to the potential benefit of a total TAPS ban. This concerns not only the increased income but also the potential advantages from other sectors, for example, the positive impact of total TAPS bans on urban planning, environmental, and health sectors. Research focusing on the potential benefit of a total TAPS ban can also be used to advocate for the implementation of a total TAPS ban in other regions as a means of optimizing the benefits of a smoke-free policy.

The third potential research opportunity is Behavioral Change Communication (BCC) interventions for reducing smoking prevalence at the earliest. Despite the importance of BCC interventions to support the success of a total TAPS ban and smoke-free policy, studies investigating the significance of BCC interventions remain limited. A total TAPS ban would be one of the best prompts for regulating smoking behavior and further reducing smoking prevalence. Nonetheless, smoking prevention should also be initiated at the family and community level, for example, by educating children and adolescents on the negative consequences of smoking and selling cigarettes only to those who are older than 18 years. Combining policies that regulate smoking

behavior and BCC interventions that focus on protecting youth from tobacco product exposure would decrease smoking prevalence further.

To the best of the authors' knowledge, this is the first study to compare the TAPS ban implementation dynamics in Indonesian regions as a means of tobacco control. Thus, this study likely provided a comprehensive context of sub-national TAPS ban enforcement. Multi-sectoral stakeholders with different roles and responsibilities in tobacco control and health promotion were also considered with the aim of gaining different perspectives on the TAPS ban. Understanding the situation and factors influencing the TAPS ban enforcement may enable sub-national governments to develop a TAPS ban policy as a recommended tobacco control measure. This study had two limitations: First, quantitative data related to the TAPS ban enforcement in the study locations were not reported due to inadequate data for statistical analysis. Second, the study scope was limited to two locations in Java only, thus leaving a context gap for other islands in terms of the TAPS ban enforcement.

## CONCLUSION AND RECOMMENDATION

The TAPS ban policy has demonstrated non-negligible economic and health benefits in many countries that have ratified the World Health Organization (WHO)-FCTC. It has also highlighted the importance of a comprehensive ban on TAPS in Indonesia as a means of reducing the smoking epidemic in the country. Considering the lack of a comprehensive sub-national TAPS ban, there is a need to strengthen the TAPS ban enforcement mandate by revising Government Regulation No. 109 of 2012 and starting a more comprehensive TAPS ban as part of the smoke-free policy in Indonesia, particularly in the sub-national level. It might be challenging to both initiate and implement a TAPS ban but the potential benefits would be worthwhile.

Smoke-free policies have been implemented in Surabaya and Kulon Progo with different TAPS ban enforcement. Kulon Progo has initiated a stricter TAPS ban for outdoor settings and smoke-free areas, while TAPS ban enforcement in Surabaya was hindered by several factors including the pandemic. Reflecting on Kulon Progo's experience, a strict

TAPS ban requires strong political will and advocacy skills among the local government, followed by continuous public education on the TAPS ban. These measures will also be required to reduce conflicts of interest among political parties and to close loopholes in the existing smoke-free policy. Further collaboration between government, academia, and community organizations will also be needed in improving public perception, which will lead to the smooth implementation of a total sub-national TAPS ban.

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### AUTHOR CONTRIBUTIONS

Conceived and designed the study by HRBA, R, and MSR; HRBA, R, MSR, NAF and ODEA performed the study; HRBA, MSR, NAF, and ODEA analyzed the data; All authors contributed analysis and wrote the manuscript. The authors read and approved the final manuscript. HRBA = Hesti Retno Budi Arini; R = Rumayya; MSR = Muhammad Syaikh Rohman; NAF = Nur Annisa Fauziyah; ODEA = Oktavian Denta Eko Antoro.

### CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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