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The advocacy coalition of sugar-sweetened beverage taxes in Indonesia

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ABSTRACT

The Ministry of Finance of Indonesia has put sugar-sweetened beverages (SSBs) taxation on its agenda since 2020 to address the need for health financing, as outlined in the National Medium-Term Development Plan for 2020–2024. However, the adoption process of this fiscal policy has been slow. This study aims to generate insights into the actors involved in the discourse of SSB tax adoption in Indonesia to inform their advocacy and communication efforts using the Advocacy Coalition Framework and Discourse Network Analysis. The analysis was conducted using data extracted from 1733 statements collected from 200 online web domains and subdomains, divided into three timeframes of the policy process. The analysis identified actors supporting and opposing the adoption of SSB tax. The discourse network also identified key advocacy coalitions and organisations in the discussion on SSB tax adoption in Indonesia. The results indicate that there are diverse network patterns in each timeframe and reveal the process and focus of the policy change. The Ministry of Finance had the most significant influence on the discourse, with actors from civil society organisations and universities involved in the process of policy change through evidence-based policy recommendations. Meanwhile, economic actors contributed to the debate on the potential harm of tax adoption to the industry. These findings can inform the policy process and ensure the successful adoption of the SSB tax in Indonesia.

INTRODUCTION

The global consumption of sugar-sweetened beverages (SSBs) in the last few years has increased, accompanied by an escalating prevalence of obesity and chronic diseases.[1] Several policy strategies have been developed to reduce SSB consumption. The WHO released the Global Strategy on Diet, Physical Activity and Health[2] in 2004 and a manual on SSB taxation policies[3] in 2022, which initiated the discourse around SSB tax. As of March 2022, over 50 countries have introduced SSB taxes to address unhealthy diets leading to non-communicable diseases (NCD).[4] Introducing SSB taxes is also associated with decreased sales and dietary intake of taxed beverages.[5] Therefore, adopting SSB tax may lead to declining demand for the taxed products as the consumers must pay higher prices; therefore, they tend to shift their purchasing habits to alternative products, such as untaxed beverages.[6]

In Indonesia, the estimated medical expenditures for overweight and obesity-related

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Progress towards adopting fiscal policies to reduce added sugar consumption in Indonesia remains slow despite the emergence of advocacy coalitions to influence policy decisions on sugar-sweetened beverage (SSB) tax.
⇒ There is limited information on the interaction between the policymakers and non-state actors in SSB tax policy debates.
⇒ The unstructured discourse has made coalitions less visible to the policymakers, thus not helpful for advocacy and public communication efforts to adopt SSB tax.

WHAT THIS STUDY ADDS

⇒ This study reveals the interaction and influence networks of coalition actors.
⇒ From the discourse network, advocates and communication strategists can observe the congruence network, actors' affiliation networks, and concept stances and longitudinal versions of these networks.
⇒ These would inform the appropriate approaches for engaging relevant policymakers.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ The linkage of this research to practice is encouraged by mapping specifically the degree of centrality (who are the connectors, mavens, leaders), the betweenness of centrality (the bridges, the isolates) and network centralisation (where are the clusters and who sit in the clusters, in the network core and on the periphery).
⇒ Therefore, advocates and communication strategists from coalitions can identify, among others, the target(s), and the key informant(s) (who has the best visibility into what happening in the network), and understand their target clique(s) and the point(s) of failure (who bridge the flow of information and without whom someone/some groups could be cut-off from information and knowledge).

illnesses reached 1.51 trillion rupiah (US$116 million) in 2016, and the loss of productivity amounted to 368.3 trillion rupiah (US$28.3 million).[7] Despite this, progress towards the adoption of SSB taxes to reduce added sugar consumption remains slow. Public discourse around the tax type and structure started when the Ministry of Finance of Indonesia (MoF) put SSB taxation on their agenda in 2020 to promote the need for health financing as stipulated in the National Medium-Term Development Plan for 2020–2024.[8] The plan to increase tax revenue in Indonesia is driven by many competing development needs, specifically in response to the COVID-19 pandemic which cost the country enormous budget expenditure,[9 10] like many other countries.[11] Public responses have emerged, particularly from food and beverage companies, government institutions and health researchers. Some of these actors may have shared beliefs in working together to influence policy development through political action and participation in legislative or legal debates.[12 13] This involves engaging legislative bodies and using public opinion or media resources to impact policy decisions.[14]

Despite the widespread presence of actors who advocate for or oppose the introduction of SSB tax policy in Indonesia, limited knowledge remains available of what their beliefs are and how each actor is involved in the policy discourse. This study aims to generate insights into the evolution of the SSB tax adoption process based on the involved actors and their advocacy and communication efforts to inform and support the formal policy process. The Advocacy Coalition Framework (ACF)[14] was adopted in this study to understand and explain the beliefs from multiple actors of some levels of government and interest groups that may affect policy change regarding the adoption of SSB tax in Indonesia. A Discourse Network Analysis (DNA) was conducted to identify advocacy coalitions and the relationships between key actors in the policy discourse through calculated network parameters for categorising the coalitions based on the agreed-upon concepts of SSB taxes in Indonesia. We also investigated the changes over the period of 2016–2022. Further, we seek to identify the advocacy coalition and understand the different pathways of policy changes from the ACF and DNA in explaining the slow progress of the introduction of SSB tax in Indonesia.

Theoretical framework
The ACF
The ACF is recognised as one of the most common theoretical frameworks to assess policy processes when disagreement and technical disputes arise among diverse actors.[15–17] In this study, we used an updated version of ACF by Sabatier and Weible[16] for a more comprehensible framework.[16] Previously, the ACF was used to analyse different policy adoption processes, particularly for SSB tax in the Philippines[18] and California, USA.[19]

In the case of the SSB tax adoption process in Indonesia, the use of ACF allows the understanding of policy change or choices in a particular context or of the establishment of an advocacy coalition. This framework considers policy change happening at a subsystem level, an area defined by its territorial boundary or substantive topics and includes policy actors that may initiate advocacy coalitions based on their shared beliefs.[15] Thus, policy change could happen according to the changes in belief systems within the policy subsystem.[17]

In the current framework, policy actors are assumed to have a three-tiered hierarchical belief system, which includes deep core beliefs, policy core beliefs and secondary beliefs. The success of policymaking processes depends on the ability of coalitions to translate their policy core beliefs into actual policy. In this regard, the policy actors coordinate their action with allies of similar beliefs in advocacy coalitions to influence the policy using resources, such as public opinion, information and expertise.[16]

Other than beliefs, policy subsystems are influenced by two groups of broad societal context: relatively stable parameters and external events. The subsystem sometimes also affects these groups in return.[20] Relatively stable parameters include basic attributes of the problem, distribution of resources, fundamental sociocultural values and social structure, and constitutional structure. They are crucial to identify as they build the nature of the problem, constrain the resources and inform the policy actors on the values and procedures to refer to. On the other hand, external events include extensive socioeconomic changes, public opinion shifts, coalition government changes, policy decisions and impacts from other subsystems. It is crucial to consider the external events since they not only play a part in influencing public awareness towards or even away from a policy subsystem but also promptly impact a policy process.[21]

The ACF describes that policy change can happen following four pathways: internal events, external events, policy-oriented learning and negotiated agreement.[22 23] Internal events could be triggered by a change of mind within the coalition and further shock of their policy core beliefs. The external events could force the shifting dominance from one advocacy coalition to another or the change of policy core beliefs of the dominant coalition. The third mechanism influences belief through a gradual accumulation of evidence, including scientific studies or policy analysis. However, this policy change may take time because policy-oriented learning is a self-conscious effort, especially to receive and accept information that conflicts with the existing belief. Lastly, a negotiated agreement happens when the coalitions reach a consensus on a common policy while the major external or internal shock is not present.

METHODS
As we used findings from the news media and policy documents, we explored the development of coalitions involved in the policymaking influence for adopting SSB tax in Indonesia. Specifically, we developed a coding

frame for the quoted statements of actors in the policy discourse, performed the DNA using the coded statements and used the ACF to help synthesise and contextualise the coalition groups in shaping the SSB taxation agenda.

Data collection: online media coverage and policy documents

We used secondary data generated from Indonesian online newspapers and media to represent a diverse range of readership profiles and political orientations. We used online newspapers as the primary data source to encompass a broad coverage of different actors, including members of the public involved in the policy discourse, which is a similar approach to identifying key actors and policy changes in climate change.[24] We set our search from 1 January 2016 to 31 December 2022 because the initial conversation on SSB tax began in 2016. Initially, we extracted data published up to June 2022. On observing situational developments that occurred after July 2021, which included the issuance of the Law on Harmonization of Tax Regulations (*Undang-Undang Harmonisasi Peraturan Perpajakan*, UU HPP), we decided to extend the search period until 31 December 2022. Relevant articles were identified using electronic databases of Meltwater and Google News, adopting the search terms '("*cukai*" [tax]) AND ("*minuman berpemanis*" [sweetened beverages] OR "*minuman manis*" [sweet beverages] OR "*minuman kemasan*" [packaged beverages])'.

We conducted manual searches for policy documents related to activities on the adoption of SSB taxes for secondary data. These documents included legislative bills, government regulations or statements, and advocacy strategies. A national policy public database[25] was used to identify and include bills related to SSB tax, and we snowballed to identify other relevant regulations.

We collected the news text article and the statements using another library, Newspaper3k. We developed a coding frame to extract the article title, stakeholders, their organisations or affiliations, and their statements on these topics. The extracted statements were analysed by four individual reviewers to screen statements that met inclusion criteria based on the appearance of stakeholders' quotes in the articles or documents.

The DNA

Despite its common use to understand policy changes, the ACF argues that the advocacy coalitions remain stable over the years.[26] Scholars acknowledge the limitation of the ACF to capture changes in the beliefs, stances or arguments of advocacy coalition actors that may influence the policy processes.[27 28] However, it is also argued that advocacy coalitions exist due to the shared statements or beliefs over a period of time.[13 16] The DNA was introduced and invented by Leifeld[29] to understand the structure of policy discourse happening at the subsystem level across different time spans, which may affect the policy process in each respective course. The analysis looks into the interdependent 'network phenomenon' of statements made by actors in the discourse.[29]

The analysis was conducted to identify the separation between actors who support (pro) and oppose (contra) the adoption of SSB taxes in Indonesia and the closeness of actors' statements in each cluster within three timeframes based on key external events. The additional qualitative components also fed important context influencing policy processes into the ACF to examine how actors within the respective coalitions have shaped policy over the years. The DNA is useful for identifying essential discourse components and strategies influencing policy processes that apply to ACF research.[20] Similar methods of deducing the advocacy coalition through DNA have been used in studies by Li *et al* (2023)[30] on China's policy changes on family planning and Kammerer and Ingold[24] on climate change policy discourse.

To perform the DNA, we used the coded media statements as discourse concepts and analysed its network using DNA to bring in actors' statements. Previous scholars have regarded statements made by actors to be consistent with their beliefs.[31 32] The network was constructed using coded statements, resulting in a network graph of visual representations of clusters. It is defined as a congruence network that connects multiple actors who refer to the same concept and have the same stance.[29] We computed the connections between actors through the number of matches from their agreement and disagreement over concepts related to these topics (see online supplemental file 1) using a one-mode congruence network.[29] The position of each actor was assembled using the Louvain community detection algorithm to construct the cluster partition and determine the coordinates in a graph network based on a group of actors that are densely connected but have fewer connections with other groups. Actors were assigned automatically as a pro-SSB or contra-SSB tax based on their overall stance between 2016 and 2022 (see online supplemental file 2). All of these processes, including the measurement of importance using the centrality of the network, relied on the Python programming language and NetworkX third-party libraries.[33]

Identification of advocacy coalitions using the ACF

To identify the stakeholders and each of their arguments on SSB tax adoption, we extracted the included articles using the coding frame. Texts were re-read and deductively coded using 29 concepts divided into three categories: 'problem definitions', 'problem drivers' and 'solutions' (see online supplemental file 1). Data were also categorised based on two coded concepts of SSB tax adoption: 'pro concept' and 'against concept'. The subset of statements (~4%) was double coded to ensure the reliable, unbiased result for each reviewer. Independent reviewers examined the differences in this process to understand how to categorise and to reach consensus in categorising a statement into a particular concept.

The coded statements were analysed to identify the policy and deep core beliefs of prominent actors. The policy beliefs were identified from the actors' stances on using fiscal policy to improve the health outcomes, while the deep core beliefs were linked to the fundamental values held by the actors which may be relevant to their statements on the SSB tax adoption. While we acknowledge this process as deductive, we assume that statements in the media represent actors' beliefs.

Since the policy adoption process has only been lasting for less than 10 years, we admit the challenges to distinguish the policy core from deep core beliefs. However, we referred to the following explanation to identify each belief. The deep core beliefs are the top tier, the fundamental normative values. While deep core beliefs are not policy specific and may extend to several policy subsystems, they are very resistant to change. The policy core beliefs, the middle tier, are empirical normative values bound to a specific policy subsystem. Previous study mentioned policy core beliefs as the most prominent agent that binds the coalitions together and may influence major policy change associated with these beliefs.[17 34] The last one is secondary beliefs defined as empirical beliefs that have specific instrumental means for attaining the objectives outlined in the policy core beliefs. In other words, secondary beliefs include policy actors' preference for specific measures, like specific policy design, policy instruments or financial allocation. Also, the secondary beliefs are most susceptible to change because actors must respond to new knowledge and experience, thus compromising for minor policy change.[15–17]

Patient and public involvement
There has been no patient or public involvement during the development of this article.

RESULTS
We extracted 1733 statements made by 164 individuals from 71 organisations published in 200 online web domains and their subdomains (676 URLs). We found that high salience in the media corresponds to a shift in the government's arguments, and that the frequency of media statements highlighting the important events surrounding the SSB tax adoption discourse has evolved (see figure 1). The details of the actors, including their abbreviation and category, are presented in online supplemental file 2.

Results of the DNA of the SSB tax advocacy coalition revealed the importance of the network items (see online supplemental file 3), including degree, eigenvector, closeness and betweenness of actors.[35] The degree represents the frequency of an organisation being mentioned in the media in relation to SSB tax, demonstrated by the quantity of connected paths with other organisations. Eigenvector depicts the importance of the organisation in the network, in which organisations with a higher eigenvector
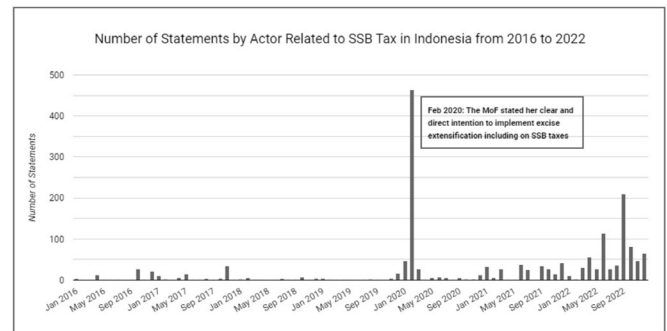
Figure 1 Number of media statements related to SSB tax from 2016 to 2022. MoF, Ministry of Finance of Indonesia; SSB, sugar-sweetened beverage.

may indirectly influence others in the coalitions. Closeness refers to the shortest path length between one actor and the other actors, reflecting their extent of communication channels. Lastly, betweenness represents the position of an organisation in the network relative to the other organisations. In other words, the higher the value (0–1), the more likely an organisation is to influence other actors in the coalition based on their network item characteristics. Organisations that are closer together or in the centre of a cluster support similar concepts within the coalition. Conversely, organisations on the periphery of a cluster suggest that they discuss different concepts from those in the centre of the cluster despite sharing common stances on SSB tax with organisations in the same-coloured cluster.

Background and process of policy change in the SSB tax adoption in Indonesia
The initiation of public dialogues on the imposition of SSB taxes in Indonesia dates to 2016, when members of the House of Representatives of Indonesia (DPR RI), the Center for Indonesia Taxation Analysis (CITA) and the MoF started a conversation on using the health-based reasoning as a means to expand the range of taxed objects and increase the demand for tax extensification. However, the MoF did not seem to prioritise the adoption because the 11th Commission of DPR RI released a statement to demand the MoF for adopting SSB tax nationally.

Prior to 2016, a regulation on information labelling was released through the MoH Regulation No 30 of 2013.[36] In the same year, the Indonesian Basic Health Research (*Riskesdas*) reported an increasing prevalence of overweight and obesity among adults from 19.1% in 2007 to 26.3%.[37] Only after the issuance of MoH Regulation No 63 of 2015,[38] the time period for manufacturers to provide information on sugar, salt and fat content on packaging by 2019, the discussion on sugary beverages emerged.

There remained limited discussions around SSB taxes with a focus on economy between government institutions and civil society organisations (CSOs) between 2016 and early 2020. However, in February 2020, the central

Frequency of Actor's Statement by Date
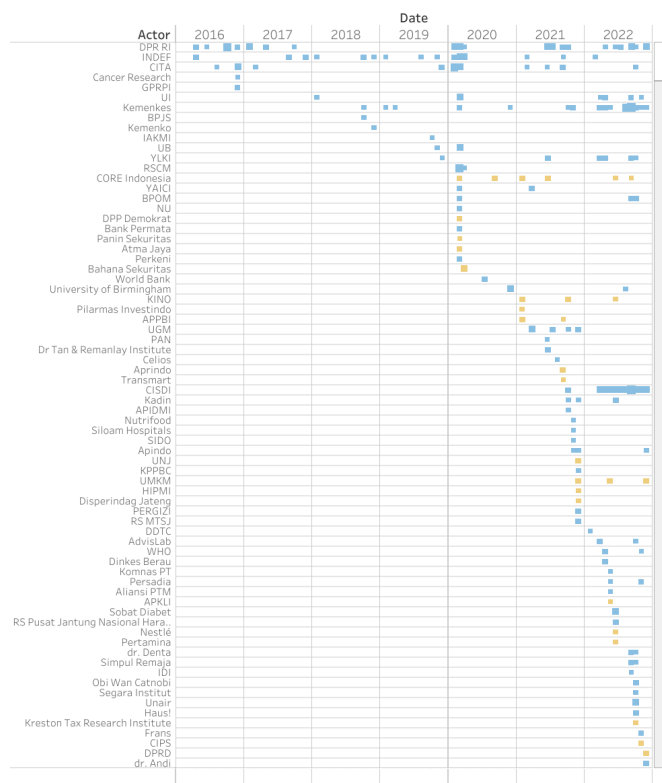
Figure 2 Frequency of media statements by each actor, sorted on the date of first occurrence.
Blue indicates pro-SSB tax, yellow indicates contra-SSB tax.

government, through the MoF, stated a clear plan to extend the range of taxable goods to include SSBs. This statement sparked a backlash from industry actors, while actors that include CSOs and professionals in public health supported the SSB tax adoption. In September 2022, news media resurfaced the conversations on SSB tax adoption, highlighting sugar content in ready-to-order beverages. These key events provided justification to divide the process of SSB tax policy adoption into three timeframes.
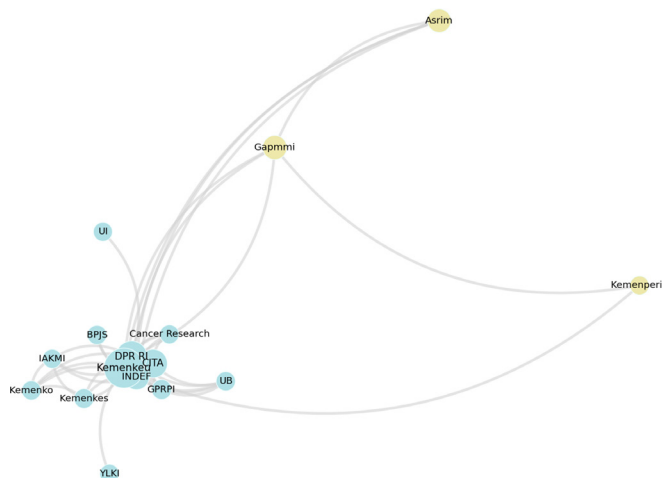
Figure 3 The congruence network among SSB tax adoption between 1 January 2016 and 19 February 2020.
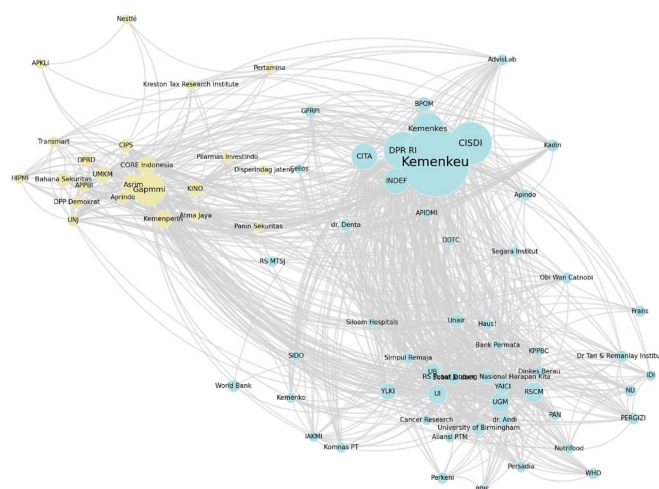
Figure 4 The congruence network among SSB tax adoption between 20 February 2020 and 25 September 2022.

The DNA results for each timeframe (see figures 2–4) show the existence of different actors in the SSB tax advocacy landscape. The analyses revealed the formation of pro-SSB tax (blue) and contra-SSB tax adoption (yellow). Organisations in respective clusters shared common concepts. The size of the nodes in the network represents the frequency of a particular organisation being mentioned in the media regarding SSB tax discussions. However, formal networks formed within each cluster could not be identified through the DNA.

To provide context to our findings, we elaborate the roles of DPR RI as the legislative body in the formulation and decision-making of laws and policies, the approval of the national budget and oversight of the government.[39] In the SSB tax adoption process, their roles include scrutinising the national budget (ie, sources of tax revenue stream) and providing approval of taxable goods. In the political structure, industries or governments backing political parties potentially have influence in the policymaking processes.[40–42] Unfortunately, while opportunities are available for public voices in decision-making, multiple evidence shows that they are frequently deemed insignificant.[43 44]

Early stage of policy discourse: January 2016 to February 2020

Figure 2 visualises two advocacy coalitions formed between January 2016 and February 2020. In the pro-SSB tax adoption cluster, the MoF was particularly the most prominent actor in the coalition alongside CSOs such as Institute For Development of Economics and Finance (INDEF) and CITA. The contra-coalition included the Ministry of Industry (Kemenperin), the Indonesian Food and Beverage Entrepreneurs Association (GAPMMI) and the Association of the Beverage Industry (ASRIM). In this coalition, GAPMMI seemed to have the dominant position since it established the most relationships with other actors. Overall, INDEF, MoF and DPR RI were

the top three degrees of centrality (0.87, 0.73 and 0.67, respectively), meaning they had the most relationships with other actors, indicating that they led the discussion of the SSB tax adoption within this period. However, INDEF had the highest betweenness centrality (0.45), suggesting that it established interaction with and potentially influenced actors from different coalition groups in the network.

The congruence network of diverse actors in the pro-tax coalition in figure 2 suggests different concepts shared among these actors. They argued that the government was responsible for protecting public health and that SSBs were the contributing factors to NCDs. Also, they perceived the SSB tax as an effective tool to reduce SSB consumption, and believed tax revenue could be included in the health services budget. These statements reflected the policy core beliefs of the pro-tax actors.

The contra-SSB tax actors responded to the MoF's plan to adopt the SSB tax by expressing their concerns and industry-based reasoning of the potential counterproductive, contradicting impacts of the plan on Indonesia's macroeconomic policy, such as tax. The shared beliefs in this period were centred around the negative impact of SSB tax on decreasing industry's sales and income. They also argued that SSBs were not the sole cause of diabetes or other NCDs.

We observed an interesting case when the Indonesia Association of White Cigarette Manufacturers (GPRPI or Gaprindo) jumped into the debate, proposing to prevent the government from further intensification of tobacco tax in Indonesia. As a response, the Minister of Finance, Sri Mulyani, released her first statement of adopting the SSB tax in 2017. As a result, INDEF slightly changed their stance to support the tax extensification for products, including SSBs, plastic and carbon emissions as opposed to the government imposing a higher tax on tobacco products. Further, the Coordinating Ministry for Economic Affairs released a statement that the government planned to add 15 items for tax extensification, but no technical details were disseminated to the public. The MoH, Nila Moeloek, also joined the conversation, noting that SSB taxation was not introduced in Indonesia. Representatives from the Social Health Insurance Administration Body (*Badan Penyelenggara Jaminan Sosial Kesehatan*, BPJS) started to echo the arguments of DPR RI in 2016 and shed light on their difficulty in paying downstream treatment costs without a strong upstream policy from the central government to address health risk factors. Actors from academia, including Ari Kuncoro, the Dean of the Faculty of Economics and Business at the University of Indonesia (UI) (2013–2019), emphasised the need for a price elasticity study on SSB products before imposing such taxes, signalling the start of closed consultation processes carried out by the MoF with external experts and professionals. Additionally, lower echelons in the MoF started to emerge in the network, indicating further internal consolidations. No counterarguments from the contra-coalition were recorded in the media.

The rising traction in dialogues about SSB taxes resulted in more robust, evidence-based arguments that were built on UI research on the price elasticity of SSB and global best practices from both pro-coalition and contra-coalition. Alongside this, civil society networks grew larger and more diverse from late 2019 to early 2020 (see figure 3). Think tanks and advocacy organisations with non-economic backgrounds, as well as academic professionals from other academic institutions, were evident. Indonesia's Consumer Foundation (YLKI) also jumped into the debate, supporting tax extensification for products that have negative impacts on health.

New emerging actors in the discourse: February 2020 to September 2022

In 2020, MoF stated a clear, direct intention to introduce tax extensification, including on SSBs. This statement was based on evidence from further price elasticity research stating that potential revenues could amount to IDR1.85 trillion (equivalent to approximately US$123.4 million). This clear stance from one of the main actors in the debate sparked conversations with new and old actors, both for and against the adoption. Figure 4 shows many new actors were involved in the discourse and brought different lenses into the policy adoption, including tax burdens and potential long-term health impacts, with the pro-SSB tax adoption advocacy coalition divided into two clusters.

Five actors leading the discussion were MoF, GAPMMI, Center of Reform on Economics (CORE) Indonesia, Center for Indonesia's Strategic Development Initiatives (CISDI) and MoH, with their respective degrees of centrality of 0.78, 0.73, 0.71, 0.69 and 0.69 (see online supplemental file 3), suggesting the significance of each actor in reaching a diverse set of actors within the network. These top five actors also scored the highest in closeness centrality. It is thus evident that in each coalition, the actors tend to correspond with one another, and actors with a higher frequency in the media were more likely to have the highest reach to different stakeholders in the network. Meanwhile, the MoF, CISDI, the MoH and DPR RI had the highest eigenvector centrality, noting that their statements and research dissemination over the years that were reported in the media had shaped the arguments found in the network.

Three new actors argued for the adoption with their respective focus: Yayasan Abhipraya Insan Cendekia Indonesia on the issue of sweetened condensed milk; the National Agency of Drug and Food Control (BPOM) on high sugar content in most children beverages; and Indonesia's Endocrinology Society on the financial burden caused by catastrophic diseases.

On the opposite side, GAPMMI remained the leader of contra-coalition in rejecting SSB tax adoption, supported by the Ministry of Industry, ASRIM, academics within Atma Jaya University and financial analytics institutions. Their arguments revolved around price increases, the loss of people's purchasing power and concerns about

the impact of taxes on growth in the non-oil and gas industries. More specifically, some actors also believed that SSB tax adoption would be counterproductive for the national economy in the long term due to price increases which affected profit growth the most.

The deep core beliefs of contra-SSB tax actors were observed to be preserving the economic growth, and their statements emphasised the potential economic harm of government intervention in imposing the SSB tax. Regarding Indonesian purchasing power, the contra-side actors focused on protecting industrial revenue because adopting the SSB tax was arguably counterproductive to industrial growth and investment. Loss of purchasing power for industrial commodities would reduce revenue or gross domestic product, thus increasing the burden on the industries. These stances indicated as policy core beliefs, which also included how SSB tax would not lower NCD rates and that NCDs were not single-handedly caused by specific foods or beverages. The extent of other arguments behind their strong opposition to the SSB tax in Indonesia remains unclear.

The issuance of the UU HPP in 2021 successfully drew attention of actors in the coalitions, which were the most of all periods. Stances among these actors remained similar, where MoF, CISDI, DPR RI and MoH were the most quoted to have pro-SSB tax adoption stance. However, CORE Indonesia apparently switched their stance from contra-SSB in 2020 to pro-SSB tax adoption in 2021. This switch was also reflected in CORE Indonesia's highest betweenness centrality relative to all actors, particularly MoF (0.16 vs 0.10).

The Ministry of Industry and GAPMMI remained the main actors in contra-SSB tax adoption, arguing the limited literature and empirical evidence on the correlation between SSB taxes and reduced NCDs. Meanwhile, actors in beverage and retail industries, such as KINO, Nutrifood, SIDO and Transmart, were concerned about the potential high-tax burdens on micro, small and medium enterprises (MSMEs). Another contra-statement questioned the significance of reducing processed food intake (only 30% of total food intake) to control sugar consumption which could backfire to significant loss of sales and state revenues. By the end of 2021, we found that MoF, DPR RI, INDEF and CITA released intercorrelated support statements on SSB tax adoption. Meanwhile, GAPMMI and Aprindo, backed by the Ministry of Industry and MSMEs actors, stood their ground that SSB taxes would bring financial damage and other burdens to MSME performance in Indonesia.

In 2022, more news about SSB tax adoption was broadcast in May, along with CISDI disseminating research results of SSB tax to prevent NCDs. Several stakeholders, including the National Commission on Tobacco Control (Komnas PT) and the MoH, supported these findings. Business actors from MSMEs were also involved in this discussion, stating the implications of the SSB tax on their businesses.
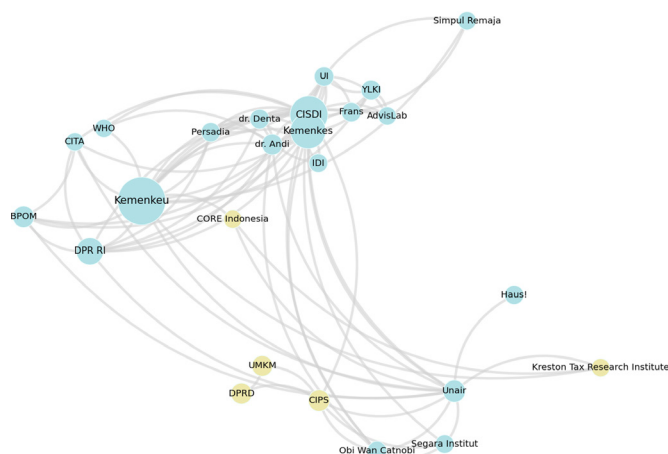
Figure 5 Congruence network among SSB tax adoption between 26 September 2022 and 31 December 2022.

Pro-SSB tax adoption coalition leading the discourse: September to December 2022

In September, there were two events that sparked public discourse, namely the Forum for Young Indonesians, a public discussion focusing on the importance of adopting the SSB tax and involving policymakers and the community on ready-to-order drinks which allegedly contained excessive added sugar. Second, the MoH and the Indonesian Medical Doctors Association (IDI) issued a statement regarding the need to limit the consumption of added sugar. Support for introducing the SSB tax also emerged from actors in the YLKI and the Indonesian Parliament.

Figure 5 shows the limited presence of the contra-tax actors in the discourse and the diverse actors of the pro-tax coalition grouped into two clusters. In the first cluster, the MoF and CISDI were found again to be at the top for their large degrees of centrality (0.71), followed by the MoH of 0.58. In the smaller cluster, Airlangga University (Unair) had a degree of centrality of 0.54, suggesting their dominant position within that cluster.

During this period, the discourse focused on the lengthy process of the adoption of the tax. The MoF appeared to be separated from the other actors in the cluster, as they stated that the policy was still under review due to the economic recovery. As shown in figure 5, CORE Indonesia appeared to be close to the MoF due to their belief in delaying the SSB tax adoption to prioritise economic stability. Meanwhile, other actors in the pro-tax coalition pushed government institutions to begin the adoption process with the rising consumption of SSB and low awareness in the community of the importance of a healthy diet.

Coalitions, beliefs and policy changes

In this section, we describe how each coalition and their beliefs may lead to policy change of the SSB tax adoption. Relative stable parameters include the consumption of sweetened, non-alcoholic beverages that contain excessive sugar level. SSB tax distribution relies on national

regulation and its consumption may have economic and health-related values.

In the case of SSB tax adoption in Indonesia, we infer that the unsuccessful policy change, up to December 2022, happened following multiple paths: internal events, external events and policy-oriented learning. Referring back to the ACF, we hypothesise that there has been no consensus regarding the secondary beliefs among two coalitions that allows negotiated agreements. Despite the growing literature on the negative impact of excessive SSB consumption, which serves as a resource for policy-oriented learning to adopt the policy, we assume that there might be activities done by the contra-side coalition to delay the policy introduction not captured in the discourse network. In this situation, the policy broker could have a significant role to mediate the discussion between the disputed parties. However, the policy broker has not been identified in the discourse

of SSB tax policy in Indonesia. Likewise, the mechanisms of change are also still insufficient to identify even though we see the growing body of literature to support notions on health and economics. The public opinion in the media regarding SSB, its impact and measures to tackle the issues is seen increasing as well. We consider this case to happen regarding the short time span of SSB tax discourse, thus many components of policy change are still ongoing and are discussed internally, instead of being publicly expressed by the policy actors in the media. We summarise the ACF components on the introduction of SSB tax policy in table 1.

We consider the initial discussion raised by the MoF to introduce the tax an internal event which started the discourse on the potential policy change. As depicted in the discourse networks, a large number of governmental authorities were supportive of the SSB tax with the MoF standing out with a significant number of statements in

Table 1 The summary of application of the ACF applied to the introduction of SSB tax policy

ACF component	SSB tax adoption in Indonesia
Relatively stable parameters	
Basic attribute of the problem area	Packed beverages with added sugar
Basic distribution of natural resources	Uncontrolled consumption of SSB and its negative health-related impacts
Fundamental cultural values and social structure	Economic-oriented values and health-oriented values
Basic constitutional structure	Division of roles within the executive bodies or/and existence of a legislative body
Policy subsystem	
Territorial scope	National level
Substantive scope	Economic and health-oriented policy
Policy participants	Refer to online supplemental table S2
Belief system	
Deep core beliefs	Health-oriented beliefs, economic-oriented beliefs (pro-SSB tax) Economic-oriented beliefs (contra-SSB tax)
Policy core beliefs	Pro-SSB tax beliefs Contra-SSB tax belief
Secondary beliefs	Proposal of using tax policy to control SSB consumption in the nation (pro-SSB tax) Unidentified yet from the contra-SSB tax
Advocacy coalition	Pro-SSB tax versus contra-SSB tax
Policy broker	Unidentified yet
Resources	Scientific information, public opinion
Venues	Unidentified yet
Mechanisms of policy change	
Internal events	The initial discussion raised by the Minister of Finance to adopt the SSB tax policy, yet the ministry changed the beliefs to hold the policy introduction after COVID-19 pandemic.
External events	Public discourse on SSB consumption and its impact
Policy-oriented learning	Growing body of literature regarding SSB and the impacts of excessive consumption of sugary beverages
Negotiated agreement	Unidentified

ACF, Advocacy Coalition Framework; SSB, sugar-sweetened beverage.

the media. This makes sense given that the MoF has a leading position in fiscal-related policies. Several other policymakers and stakeholders in the pro-tax coalition include the MoH, BPOM, BPJS, DPR RI and Coordinating Ministry of Economics. These government bodies were supported in their pro-SSB tax position by political parties, non-governmental organisations, professional associations, academics and think tanks, health practitioners and even various parties in the private sectors. Outside of the coalition, an external event through the public discourse on the introduction of the SSB tax was taking place, which amplified its urgency.

We observed that the actors involved in their respective coalitions have distinctive deep core beliefs. The MoF, for example, focused on the economic development of the country, while the MoH concentrated on the population's well-being. This pattern also applies to the government actors, such as the Coordinating Ministry of Economics on the monetary side. Meanwhile, BPOM and the BPJS tend to have health-oriented beliefs. It is no exception to their policy core belief that partially can be captured through the statements expressed by each institution. In the secondary beliefs, the pro-tax coalition agreed that the SSB tax is an effective and efficient measure to achieve their goals and in line with their policy core belief.

We identify different periods where policy-oriented learning happened. The pro-tax coalition described the health and economic benefits that may be attained by the adoption of the SSB tax. The Indonesian government asserted that there is extensive literature proving the causal relationship between extensive sugar consumption and the prevalence of NCDs, including diabetes and obesity. The MoF also predicted that tax on SSBs may increase national revenue up to IDR6.25 trillion (US$420 million). This potential revenue could be invested in the national health insurance programme that is currently projected to have a deficit. The DPR RI also noted that expanding taxed goods is critical because the country is presently one of those with the fewest. However, the MoF declared that the proposed policy would have to be carefully considered, especially during the COVID-19 pandemic, as the main concern of the government was to maintain economic stability. This can be inferred as an additional internal event, as the MoF who initially informed the potential policy change and belonged to the pro-coalition made a shift to imply a delay in the policy change. Nevertheless, despite several short-term constraints and provisions adopted during the height of the pandemic, the 2022 national state budget plan, including the SSB tax as a new revenue stream, was approved.

On the other hand, similar policy beliefs and a high degree of consensus within the coalition were also evident in the contra-SSB tax coalition. Unlike the pro-SSB tax coalition that supports specific measures to achieve their goal in health-related and economic-related development, the statements from the contra-coalition did not mention any certain measure to reinforce their economic-oriented beliefs. The key stakeholders against the SSB tax are mostly the food and beverage industries and their associates, with the addition of the Ministry of Industry to their network. As seen from the media statements, their strategies focus on contesting the body of evidence on the impact of the SSB tax and emphasising the economic burden on the industry particularly during the COVID-19 pandemic. The extent to which the industry is involved in direct lobbying with policymakers is still unknown. In a knowledge brief released by the World Bank,[45] it was mentioned that there were a number of industry-backed arguments on the negative impact of the SSB tax, although with limited published evidence.

We identified that the deep core beliefs of the actors in the contra-side coalition centre on the economic aspect. This is particularly evidenced by statements made by these actors that emphasised the economic burden that may be caused by the introduction of the SSB tax, which indicates their policy core beliefs. The actors stated that the industry's contribution to the Indonesian economy would be affected significantly by the adoption of the tax, which was argued to lead to a decrease in the SSB consumption and decline in profit. However, this policy core belief does not seem to apply to all actors in the contra-SSB tax adoption coalition. Based on the political discourse, we found that some actors in the respective coalition expressed their stance on preserving the status quo to improve the economic stability after pandemic. Similar arguments used by the contra-SSB tax on the economic burden for the industry of the proposed tax was also reported in a study in California.[19]

DISCUSSION

The ACF was used in this study to help determine the relationships within the coalitions that influenced the policymaking process for adopting SSB tax. Results from the DNA clearly demonstrate that there are two distinctive coalitions involved in SSB tax discourse in the media, which are pro-SSB tax and contra-SSB tax. Throughout the years, this study shows the increased number of actors involved and voicing their statements on the SSB tax adoption. Some actors stayed in the same course, some changed their beliefs due to various factors, including political and economic situations. Amidst the growing attention and commitment of the MoF to implement the SSB tax, understanding how best to frame and develop such health taxes within the national political, economic and social context will be critical to their success.[46] This study has given a glimpse into the ecosystem shaped by the two coalitions within three timeframes that have determined the road towards SSB tax adoption in Indonesia thus far.

Policy implications

The adoption of multisectoral governmental policies and intervention efforts has been gaining traction in lieu of

Indonesia's 2024–2029 presidential election.[47 48] Specifically in the health sector, efforts have been particularly focused on pushing for a health-in-all-policy approach in policymaking processes while finding sustainable financing mechanisms to further investments in health. The political momentum that goes hand in hand with the established pro-tax adoption coalition on the SSB tax may aid in further expanding the coalition and thus pushing for its realisation in 2023. The MoF can further the effort of championing the excise tax by creating collective efforts involving multiple stakeholders as potential best practices for future health in all policies, programmes and interventions in Indonesia. This would also emphasise the need for public policies to consider shifting their focus towards upstream factors stemming from social determinants of health to address social, health and economic inequities in the population. This would, in turn, share the ownership of the population's health among governmental bodies, enabling the achievement of national health targets together as a country.

The rise of diabetic cases in Indonesia was found to be concerning, given that the number has hiked up by twofold in 15 years.[49] Indonesia was also found to be ranked third in SSB consumption among Southeast Asian countries[50] and a national research revealed that two out of three young people aged 5–19 consume one or more servings of SSBs per day.[51] Focusing on the entrance of BPJS into the discourse in 2016, their participation added a new dimension focusing on financial sustainability and the burden of NCD treatment costs. Strong upstream policies or regulations from the central government were found to still not be robust in NCD prevention and programmes. It was evident that there is still a lack of consideration of health risk factors in policy, tied to unsustainable financial mechanisms experienced firsthand by BPJS. The adoption of the SSB tax by the central government gives an opportunity for innovative financing mechanisms for NCD programmes and prevention. We have seen the success of a similar approach of imposing taxes on tobacco,[52 53] environmental pollution among European Union member states,[54] and earmarking the revenue to finance health expenditure.

The government also pointed out that public awareness of the impact of nutrition on NCDs still lacked. With this in mind, the government has seen the necessity of adopting policies focused on controlling SSB consumption within the nation. This will be achieved by changing public opinion, which in turn will initiate overall behavioural change and end in improving public health. However, for the tax to actually be introduced, an additional step in the policy process, a government regulation (*Peraturan Pemerintah*), is required. This government regulation has to be created prior to the incoming year. To date, there has been no conversation captured by the media around the formulation of this government regulation by specific ministries. A public campaign aiming to get the government to create this regulation could be an option for the pro-SSB tax coalition. The increasing access of

non-government actors (ie, CSOs and academia) to influence the political system also strengthens the coalition's strategy in directly impacting policy outputs and impact.

The recent 2023 Health Bill plan released by the DPR RI signalled the importance of strengthening coordination and collaboration on health-related issues across ministries, aiming to aid in communicating health policies across government agencies towards health system strengthening.[55] This also showed the importance of the role of MoH as the health lead sector in pushing forward the adoption of SSB tax in Indonesia. The released plan also signalled that the MoH has a stronger advocacy position relative to other ministries and actors in this case. This would provide different government agencies with a level playing field in conducting multisectoral public and social policies in their attempt to take a more upstream approach to health and social policies in Indonesia. This would in turn create the momentum needed to develop continuous feedback and monitoring mechanisms in Indonesia's policymaking processes through structured meetings, multisectoral coordination and strategy; all required to accelerate the collaboration plan.

Similar to Indonesia, Thailand has strong regulatory support for an SSB tax from government entities, with a unified coalition involving academia, non-governmental entities and professionals. The success of their tax adoption has been attributed to how the coalition was empowered through working groups, feedback channels and monitoring and evaluation mechanisms that were actuated by the government.[56] Within the political subsystem of the ACF, these mechanisms have promoted engagements with the policymakers through negotiated agreements and learning among the relevant stakeholders. Similar enablers, such as the capacity building and accountability of the advocacy groups, have been identified in sustaining health policy.[57] Thailand's volume-tiered SSB tax system implemented in 2017 by the national legislative council was also found to be driven by national health concerns about sugar intake and diabetes as opposed to an interest in tax extensification as seen in Indonesia.[56] Revenue gained from SSB taxes in Thailand has generated revenue for the state, which has prioritised funds, initiatives and projects related to health and NCD prevention.[58] Additionally, feedback and monitoring mechanisms powered by Thailand's annual National Health Assembly (NHA) Resolution 8 on the management of overweight and obesity in 2010 were found to spearhead multisectoral feedback on SSB tax adoption, which proved to be instrumental in its success.[59] This positive example affirms the urgent need for Indonesia to strive for open knowledge, transparency, cross-sectoral collaborations and clear directions from the MoF and DPR RI on their SSB tax roadmap to ensure its success. Mirroring Indonesia's experience, an opposition coalition was also identified in Thailand, which lobbied intensively to halt the SSB tax introduction. Positions and arguments used to oppose the adoption were found to match what we have found with the opposition coalition in Indonesia,

including the inefficiencies and lack of evidence of tax in reducing consumption, tax burdens and profit decline for the industry and MSMEs.[56] Additionally, the role of the media, as seen in Indonesia, was apparent in Thailand and seen as an extension of the respective coalitions in conveying their opposing stances on policy adoption to the wider public. We also identified other strategies that have been used by industry actors from the opposition side of the SSB tax adoption coalition in Australia on establishing a positive image and gathering the sympathy of the public through their corporate social responsibility scheme.[60]

The results of this study have shown the global patterns identified and the critical role coalition groups and members have in determining the extent of SSB tax adoption success in Indonesia. There is no doubt that the strong and sustainable support from the MoF and DPR RI over the years acts as a signal of the government's willingness to implement foundational regulations needed to pass such a policy through law. However, the continuous and active participation of other stakeholders, including CSOs, local communities, non-governmental organisations and academia, will also be critical in maintaining the support, endorsements and evidence needed to base the policies on. We observed that in Thailand, such collaboration would give way to feedback and monitoring mechanisms to push for accountability in implementing this fiscal tool through their annual social mechanism, NHA forums.[61]

To conclude, it is instrumental to note how the success of SSB tax adoption would critically need an inclusive and participatory approach in which non-governmental agencies and bodies, including CSOs, academia and professionals, are also engaged in these processes. These groups have helped and will continue to pave the way for the adoption of SSB tax. This approach would also generate social accountability among different actors and ultimately the policymakers. Therefore, emphasising the significance of coalition groups and their members' affiliations in adopting health fiscal tools such as SSB taxation and the understanding of the social, political and economic context is needed to ensure its successful adoption in Indonesia.

Strengths and limitations

To our knowledge, this is the first study using the ACF to explore the adoption of SSB taxes in Indonesia. The use of extensive online newspapers and media as the data source allowed the identification of different statements from stakeholders taking part in the debate on the topic.

However, we are aware that a study using media statements is prone to bias as it depends on the information that the media chooses to report. In addition, since this study evaluated evidence from news media and policy documents, we could not ensure whether the coalitions worked together to turn shared beliefs into policy outside the media domain. There is also the possibility that organisations expressed specific statements to represent strategic positions in the public, whereas their real positions were not consistent. In this regard, we could not explore the actual strategies and approaches used by each stakeholder. Another limitation of this study was that we only researched the discussion on the SSB tax adoption within the last seven years due to the initiation of related media conversation.

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