Enhancing the food labelling system in Indonesia: The case of food with health-related claims in small and medium enterprises

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Abstract. Food labelling is an important element in realizing food safety and nurturing competitiveness. However, empirical research shows that the enforcement of food labelling policy entails complex issues in Indonesia. Taking the case of food with health-related claims produced by small and medium enterprises (SMEs), this research identifies regulatory strategies taken by the Indonesian government as well as challenges in policy enforcement. The findings indicate that the performance of SMEs in complying with labelling regulation on food with health-related claims is influenced by the business environment and institutional framework where the SMEs grow, including a weak regulatory framework, market condition and infrastructure. Furthermore, limited access of SMEs to strategic resources, including finance, skill and innovation assets have also hindered their compliance to regulation. This study addresses the importance of collaboration between multiple stakeholders to strengthen the food safety system from the ecosystem perspective. The interconnection between SMEs, government, research organizations/universities, financial institutions and other members of the ecosystem in co-creating value is expected to enhance the enforcement of labelling policy on food with the health-related claim in the future.

1. Introduction
Food labelling is an important element to achieve food safety. Food label provides any information the customers need to know including the product content, intended use, and safety considerations. This information is important to avoid information asymmetry between producer and consumer, so that the consumers may get the right information before deciding to purchase the product [1].

In recent years, people’s preference for food with functional benefits for health has significantly increased following changes in lifestyle and dietary habits [2,3]. This condition offers an economic opportunity for the food industry to produce and sell functional food products [4]. As its use in marketing strategy, health or nutrition-related claims become an important issue for the food industry to promote innovative products and to compete among companies [5]. Moreover, the labelling of health-related claims on food products is essential to inform consumers about health – diet relationship. Consumers will use this claims to identify the health benefit provided by the products as well as to make food choice[6,7].
The government, as a policymaker, plays a key role to keep the market functions well and to avoid market failure[8]. There should be a policy to secure the safety of food for consumers while maintaining opportunities for industrial development. Food labelling becomes an important policy instrument aims to (1) prevent food industry and seller from intentionally misleading consumers through false information on food package[1], (2) to ensure the protection of consumers on the safety of food products through the true claims[1,6], and (3) to keep the competitiveness of functional product in the global market [6].

The Government of Indonesia (GoI) has regulated some policies regarding food labelling and health claims labelling on functional food products as a strategy to achieve food safety. However, there are still challenges on policy enforcement. The compliance with the regulation is still weak. The National Agency of Drug and Food Control of the Republic of Indonesia (BPOM), who responsible for drug and food assessment and monitoring still found many food products containing misleading claims labelling.

Small and medium enterprises (SMEs) are typically different from big industries. SMEs have more limitations on financial resources, employees’ capacity and are more vulnerable to economic turbulence [9]. However, SMEs have played an important role in economic resilience, inclusiveness, and productivity despite barriers for innovating, driving competitiveness, and growing[9]. Based on data from Ministry of Cooperatives and Small and Medium Enterprises of the Republic of Indonesia, in 2018, SMEs accounted for 99.99% of the industry in Indonesia, including micro, small and medium enterprises. They contributed around 60.90% to national gross domestic product (GDP). Furthermore, the food industry has been one of major sectors in Indonesia. Based on Statistics Indonesia (BPS), food industry contributed 6.25% to national GDP in 2018. Thus, in addition to economic contribution, food SMEs is also urgently pushed to take part in the nutrition improvement [10].

An effective policy implementation on health-related claims labelling regulation to support the development of the food industry and food safety requires a supporting ecosystem, both on the enforcement and monitoring of regulations [7]. Many actors are involved in this system in addition to SMEs. They are interconnected in co-creating value of innovation[11,12]. Thus, it is also imperative to look at the governance issue and the supporting environment where the SMEs grow.

This study aims to identify health-related claims labelling regulation in Indonesia and challenges in its enforcement. By using an ecosystem perspective, the study identifies the involved actors to analyze their role, gap in the interconnection between actors, and opportunities that each actor may share in co-creating value in the enforcement of health-related claims labelling policy.

2. Materials and Methods
This study employed a qualitative approach. Analysis of food labelling related regulation was conducted to get an understanding of government regulation related to food labelling policy in Indonesia and the government’s strategy to provide opportunities for food SMEs. The studied regulation comprises Head of BPOM Regulation 13/2016 on claims on processed foods labelling, BPOM Regulation 31/2018 on processed foods labelling, and BPOM Regulation 23/2018 on food home industry supervision guidelines.

An in-depth interview with food SMEs producing functional foods and government officials from BPOM was conducted to identify challenges on the policy enforcement from the perspectives of both SMEs and policymakers. Interview with experts and government officials from the university and public research institution (PRI) was carried out to see their potentials as a knowledge hub and linkage with the food industry. Policy dialog was conducted through focused group discussion (FGD) attended by representatives from industry, government, and PRI. The ecosystem perspective was employed throughout the study to see the interconnection between stakeholders in the enforcement of health-related claims on the food label.
3. Results and Discussion

3.1. Food labelling regulation in Indonesia

The food industry in Indonesia should meet regulation before their food products are eligible to market. Food products should obtain a distribution permit from BPOM before entering to market. Food labelling becomes one of the important factors for the assessment and issuance of distribution permits. BPOM Regulation 31/2018 on processed foods labelling indicates that the label included on the food product packaging must be in accordance with the label that was approved during the issuance of the distribution permit.

Realizing the importance of distribution permits on one hand and limited resources of food SMEs on the other hand, the GoI allows home industry-scale SMEs to market its food product with Home Industry Food Production Certificate (SPP-IRT). In this case, the food product should attach the words “P-IRT” on its label, meaning food products of home industry. BPOM Regulation 23/2018 explains that SPP-IRT is issued by the local government/district level where the food product is produced. Food products with “P-IRT” label are limited both in the permitted types of food products and information attached to its label and production location. “P-IRT” label includes foods with short expired-dates (7 days) but excludes dairy and frozen food products. The label may contain information of expiring dates date and the ingredients of the product, but may not inform any claims. Food product with “P-IRT” label should be produced in the region/district where product permit is issued and should not be produced in other regions. These production policies of “P-IRT” label are taken into account to secure SMEs from market failure.

BPOM distribution permit offers more information covered in the product packaging. It can attach health-related claims of the product. Based on BPOM Regulation 13/2016 health-related claims include (1) nutritional claims, (2) health claims, and (3) isotonic claims. Nutrition claims mean the information of nutrition contained in the food product. This claim consists of nutritional content claims and nutritional comparison claims. Health claims mean information related to the health benefit by the consumption of the food product. Health claims might in the form of nutritional function claims, other claims (fiber), and disease risk reduction claims. In order to get health-related claims, the food product should obtain scientific evidence to prove the nutritional component or its function. In addition to scientific evidence, disease risk reduction claims demand clinical tests in order to obtain the authority’s permission.

3.2. Challenges in food labelling enforcement

Food labelling policy aims to secure consumers from any misleading information from food industry/seller and to keep competitiveness among the food industry. However, the enforcement of the policy becomes a complex issue in Indonesia, especially among food SMEs. There are cross-cutting elements on SMEs and policy governance that influence the performance of SMEs. They comprise of the business environment and framework condition where SMEs grow and the condition under which SMEs can access strategic resources[9].

3.2.1. Business environment and framework conditions

SMEs are typically dependent on the environment where they grow. Food SMEs should comply with the labelling regulation to market their products. Instead of acting as leveraging factors, institutional and regulatory framework, market condition, infrastructure might become barriers for SMEs development, which in turn might lead to noncompliance with regulation.

The government provides some regulation to which the food industry is able to meet. The industry should obtain a distribution permit issued by BPOM before the products enter the market. There are four types of health-related claims with different requirements to fulfill. Home industry scale SMEs with limited resources are excepted from this regulation. They might apply for “P-IRT” certificate. This certificate brings some consequences, including limited food product categories, not permitted claims on the label, and food production process only in a particular district of the certificate issuance.
Nonetheless, the complexity of bureaucratic procedures is still a major obstacle in obtaining a distribution permit. The cost of complying with the procedures is still higher for SMEs. The availability of supporting infrastructures such as standardized infrastructure required for good manufacturing practices (GMP) and laboratories within SMEs’ reachable access is still limited. On the other hand, the market demand for food with health-related benefits keeps increasing. It opens the opportunity for SMEs to develop. However, a few customers are aware of the importance of claim labelling on the food package. This condition has become a crucial issue for the industry to comply with health-related claims labelling policy. When the consumers keep buying the food products even without a true claim label, a noncompliance might keep occurring.

3.2.2. Access to strategic resources
Food product with health-related claims is a novel development resulting from the advances of science and technology in the food industry[13]. It demands scientific evidence to prove the functionality of the food so that BPOM as the authorized body could issue the distribution permit. Industry who expect to produce and market food products with health-related claims should have adequate financial resources, knowledge and innovation assets. These adequate resources are required through the whole stages of research activity, product development, laboratory test or even clinical trial in order to obtain distribution permits, until marketing and distribution. Unfortunately, these resource-intensive activities are poorly conducted by SMEs due to a lack of financial and human resources.

SMEs tend to produce functional food products without formal R&D. Food SMEs conducts innovation on functional food products through learning. They do a trial and error process in formulating the composition based on common knowledge. This activity is carried out due to limited knowledge and infrastructure in producing their innovative product. Furthermore, SMEs should find a standardized laboratory to get scientific evidence before submitting the proposal of food labelling. When this effort has not obtained the expected result, noncompliance with regulation might occur.

SMEs naturally focus on short-time survival rather than potential benefit resulting from long-term investment. There are a few SMEs who understand the urgency of food labelling and compliance with regulation. Business survival is considered more important than regulation compliance in the midst of resource constraints.

3.3. Enhancing collaboration to support the enforcement of health-related claims labelling policy
The enforcement of health-related claims labelling on food products demands sufficient resources. It is a holistic system which requires the involvement of related stakeholders, especially in addressing challenges faced by food SMEs. The interconnection between actors to address challenges in the enforcement of regulation for food with health-related claims is described in Figure 1.

The government holds the key role in creating a business environment and framework condition to support SMEs’ effort to comply with food labelling policy. Some policy instruments are needed to address the issues of the institutional and regulatory framework, market condition, and infrastructure. Firstly, the improvement of public administration to be more effective and transparent is needed. It is related to a clear business process to obtain a permit for food with health-related claims labelling. The government is also expected to involve other stakeholders, including academicians, PIRs, and industry during the policy formulation process. The involvement of related stakeholders might give another insight and understanding about the condition to consider, both the challenges and opportunities for policy enforcement.

In order to keep the market functions well, monitoring and supervision should be well implemented, including the punishment for industry who do noncompliance. The government might develop a program as a policy instrument by integrating the food market with another policy agenda to support food SMEs. For example, involving SMEs in the nutrition improvement program through public procurement could offer an opportunity for SMEs to produce nutritious foods. It also could be a means as a preventing action to keep healthy as mentioned in Program Indonesia Sehat (Healthy Indonesia Program). The public health institution has some programs for health improvement such as Posyandu...
for babies, pregnant women and the elderly. This program usually provides functional food products to support the well-being of those beneficiaries. The government can involve food SMEs producing functional food products to support this program through public procurement. The local government of a district in Yogyakarta has tried this instrument to involve an SME producing healthy egg to support a health improvement program for pregnant women by the local Public Health Service (Puskesmas). This kind of policy instrument could not only provide SMEs the opportunity to grow but also encourage them to comply with food labelling regulation by meeting the required standard.

Moreover, customer education on nutrition and the importance of food labels is valuable to support the market of food with health-related claims. Education on nutrition is needed to develop a knowledge society that understands nutrition demand and its function to health. They need more information about the urgency of the label too. A knowledge society will be able to make use of the food label to be informed about a food product and to avoid misleading labels in making a food choice. Eventually, customers do not rely on disease risk reduction only to make a food choice, but they will be able to understand the nutrition function of the product through nutrition claims. This awareness of customers can help the food industry, particularly SMEs, to decide the claim label on their food products. The food industry will not rely on disease risk reduction claims for product promotion and can save costs for nutrition claims. Consumers' education demands the involvement of many stakeholders. Ministry of education can help by educating students at school about nutrition. Public health management can educate society through the role of Puskesmas in every district and through health improvement programs, such as Posyandu. And the food industry can communicate with customers by providing true information on the food label.

Providing infrastructure to support the enforcement of food labelling policy is another important issue to create an encouraging business environment for food SMEs. The lack of accessibly standardized laboratory for food testing has been a problem for food SMEs. The government might open more access through the public laboratory in the university or PRIs to solve this problem. Otherwise, arranging public-private partnerships for food testing might be beneficial to reduce the cost for SME to comply with labelling regulation. This instrument would decrease the cost which the SMEs spend to get scientific evidence for the food product.

The other constraint of SMEs to comply with food labelling regulation is the limited access to strategic resources. Typically, SMEs have small funding to run business. It would increase the cost when they expect to produce and market food with health-related claims. The labelling permission would require scientific evidence and sometimes a clinical trial. The involvement of a financial institution to supply SMEs with accessible credit is required. It demands a policy in which the government might provide a condition that financial institutions could give SMEs more access to credit. This program needs a guarantee for securing financial institutions too. An integrative policy with other programs could secure the sustainability of the food SMEs and eventually the financial institution. For instance, the involvement of food SMEs in health enhancement programs through public procurement can be a guarantee to get the financial institution’s trust to offer accessible credit.

Developing the SMEs’ skills and knowledge about the food industry precondition is another key factor to enhance their compliance with food labelling regulation. Food SMEs would understand the importance of food labelling and its benefit in the long-term development. The agency extensions in districts might conduct training on regulation updates for food SMEs, knowledge on distribution permit business process and how to conduct a good manufacturing practice. Moreover, universities and PRIs as a knowledge hub, might enhance their linkage with industry. It can be in the form of product development assistance or nurturing appropriate technology. This assistance might help food SMEs upgrade their knowledge on food and technology in order to co-create innovative functional food products. This scheme might also fill the gap between the research institution – industry. Results of government-funded research used to fail to commercialize. Enhancing linkage with SMEs could open a way to commercialize research results related to the foods industry, both in product and process innovation.
Lastly, food with health-related claims is a product of advances in food science and technology. The government should provide wide access to innovation assets for food SMEs to improve their innovative capacity and competitiveness. These innovation assets might be appropriated as scientific data related to a food ingredient, a product of research and innovation, and a standardized laboratory for either testing or good manufacturing practice. Universities and PRIs might provide these innovation assets widely for food SMEs. Cooperation in scientific data can help the SMEs which is going to obtain labelling permit. So is with the standardized laboratory for good manufacturing practice. Indonesian Institute of Science (LIPI), a PRI, has opened its laboratory for the industry which expects to use it as a good manufacturing practice through maklon system to obtain a distribution permit from BPOM. LIPI and other public institutions that open its innovation assets to industry, particularly in the form of laboratory for testing and GMP should coordinate with BPOM to fulfill the standard. Besides BPOM, they should coordinate with extension agents in local government to expand this information to SMEs.

Figure 1. Network collaboration to support SMEs’ compliance with food labelling policy (Source: modified from OECD’s SMEs and Entrepreneurship Outlook: Conceptual Framework, 2019).
4. Conclusions
Food SMEs is an important actor in economic resilience. The government needs to support the food SMEs to take part in both nutrition and economic improvement. One important key is through enhancing the food labelling policies, especially for food with health-related claims following the increasing demand for food with functional benefit. This policy is important both to secure consumers from misleading information and to keep market competitiveness. Collaboration between related stakeholders is essential to reduce barriers faced by SMEs in complying with labelling regulation of food with health-related claims.

SMEs as the central actor in the ecosystem need a business environment that could support their growth and wider access to strategic resources to comply with the regulation. Improvement of the institutional framework through effective public administration, availability of supportive policy instruments to keep market competitiveness and readiness of infrastructure by either government or public-private partnership would provide a supportive business environment for the food SMEs to comply with food with health-related claims regulation. The government should also open more access to strategic resources for food SMEs to address some issues including financial, skill and innovation assets. This effort demands policy interconnection as well as stakeholder interconnection. The interconnection between the food SMEs with central and local government, financial institutions, universities, PRIs and other related stakeholders through the government’s integrated policy instruments can improve the SMEs’ capacity in the food with health-related claims production and decrease the cost of regulatory compliance.

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