Regulatory Impact Assessment (RIA) Functional Food Policy in Indonesia

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Keywords: Regulatory Impact Assessment, Functional Food, Food Policy, Cost Benefit Analysis.

Abstract: Functional Food has been regulated by the Head of The National Agency of Drug and Food Control of Republic of Indonesia or NADFC/BPOM Number HK 00.05.52.0685 about Provisions on the Principal of Functional Food Supervision, then revoked with Regulation Number HK.03.1.23.11.11.09909 of 2011 concerning Claim Monitoring in Labels and Processed Food Ads. This regulation does not specifically explain Functional Food, but contains more macro arrangements in processed food. This regulation is the object of policy research with Regulatory Impact Assessment (RIA) approached. From several regulations, the problem and stakeholders needs will be reviewed, including revoking regulations that clearly provide arrangements in the functional food sector, cost benefit analysis (CBA using AHP Tools) of the policy. The results of the CBA/AHP analysis for the benefits and costs of the priority policy of Functional Food Regulation in Indonesia, is to Revoke the Regulation of the Head of BPOM No. 13/2016 with the largest Benefit/Cost (B/C) value is 1.15, that is, with this result the optimal scenario is due to B / C > 1.

1 INTRODUCTION

Indonesia has population that reaches more than 250 million per year with growth rate of 2% by 2017 included to rank of agricultural countries in the world which the most prominent sector is agriculture. Indonesia still focused on staple foods (Kumar, 2015 in Bustanul Arifin, 2016) with predominance of foods consumed from grains around 60% (Bappenas, 2016). Lacking in diversification of safe foods inflict in inadequate availability, access, and local foods intake.

Functional Food has been regulated by the Head of The National Agency of Drug and Food Control of Republic of Indonesia or NADFC/BPOM Number HK 00.05.52.0685 about Provisions on the Principal of Functional Food Supervision, then revoked with Regulation Number HK.03.1.23.11.11.09909 of 2011 about Claim Monitoring in Labels and Processed Food and Advertisements. The existence of latest regulation does not specifically explain Functional Food, but it contains more macro arrangements in processed food (Putera, et al, 2019; Gustina, et al, 2020).

Today, functional food in Indonesia is insufficient discernible from processed food conditions which still contain hazardous substances, various products claim healthy and safe for consumption, however it is discorded with the written claims.

Regulatory Impact Analysis (RIA) is a tool or method that can be used to improve the quality of policies. This method became popular early 2000s, and widely used in developed countries. RIA consists of two methods, firstly, analyzing policies or impact of the existing policies, secondly, to establish new government regulations. RIA ensures that the regulations issued have a good motivation and systematically adequate to appraise negative and positive effect of regulations that being proposed or currently running, to evaluate policies in decision making process and appraising effects from...
government actions also to convey information to decision makers. Furthermore, RIA provides a good solution for benefits and costs issue that possibly caused by the regulations.

This research aims to study issues and needs for a regulation in reinforcing food sector, particularly functional food, to numerate its benefits and costs and providing alternative solutions of the policy.

2 RESEARCH METHOD

The research method using qualitative approach with Regulatory Impact Assessment (RIA). RIA is an analytical tool that helps government to decide whether a regulation is needed, advantages and disadvantages of it, and the alternative solutions of the regulation. RIA can be used as a policy evaluation tool, a method to assess systematically its negative and positive effects of regulations that being proposed on going progress. In this study, researchers used the Analytical Hierarchy Process (AHP) to analyze costs and benefits or Cost Benefit Analysis (CBA) as a stages of RIA.

3 RESULTS AND DISCUSSION

3.1 Review of Existing Regulation

Table 1: Roadmap of Functional Food Regulations Changes.

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Main Goal(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulation of the Head of BPOM HK. 00.05.52.0685 (2005)</td>
<td>Provisions on the Principal of Functional Food Supervision revoked</td>
</tr>
<tr>
<td>Regulation of the Head of BPOM HK. 03.1.23.11.11.09909 (2011)</td>
<td>Claim Monitoring revoked in Labels and Food Advertisements</td>
</tr>
<tr>
<td>Regulation of the Head of BPOM 13 (2016)</td>
<td>Claim Monitoring Replacing HK. Processed Food Advertisements 03.1.23.1 1.11. 09909</td>
</tr>
</tbody>
</table>

One of the stages in RIA analysis is to disclose ten principle of RIA questions and conduct RIA analysis systematically. These questions are not to improve the management process but expected as a policy instrument to reach level of regulation quality that adequate in accommodating stakeholders.

Table 2: Results of Field Data Collection (expert judgment).

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer (Tentative Conclusion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the problem correctly defined?</td>
<td>According to the contents of road map on Table 2 regulation amendment of the Head of BPOM</td>
</tr>
<tr>
<td>Is the government action apposite?</td>
<td>According to stakeholders, regulations amendment are less apposite because it has become biased between functional food, claimed food, and food for particular nutritional needs.</td>
</tr>
<tr>
<td>Are the existing regulations is the best step for the government?</td>
<td>According to the regulator it’s the best alternative. Yet to stakeholders, it’s in apposite or inappropriate.</td>
</tr>
<tr>
<td>Is there a legal basis for a regulation?</td>
<td>Yes, because it’s motivated with health constitution.</td>
</tr>
<tr>
<td>What are the levels of government bureaucracy that are involved in coordinating this regulation?</td>
<td>Ministry of Health and BPOM (interviews with BPOM).</td>
</tr>
<tr>
<td>Are the regulations useful, compared to its costs?</td>
<td>Not yet concluded (data analysis is a must)</td>
</tr>
<tr>
<td>Is distribution of the effect would be transparent among the community?</td>
<td>It must be, so that the implementation can be ruled, monitored and controlled by its implementation.</td>
</tr>
<tr>
<td>Are the rules clear, consistent, understood and accessed by users?</td>
<td>It is clear and must be accessible to all Indonesians.</td>
</tr>
<tr>
<td>Are all parties that Interested in having the same opportunity to express their views?</td>
<td>All parties (stakeholders) have the same opportunity to express their opinions. But not yet stated in this regulation.</td>
</tr>
<tr>
<td>How compliance with regulations can be achieved?</td>
<td>Gradually, the process of transition is meticulous in its application related to the possible impacts.</td>
</tr>
</tbody>
</table>

The process of RIA in analyzing and communicating the impact of new regulations are as follow:

1) Problems Framework

Problems framework are expected to be resolved with Regulation of the Head of BPOM Number 13 year
2016 about Claim Monitoring in Labels and Processed Food Advertisements, includes:

a. Are all supporting facilities to implement Regulation of the Head of BPOM No. 13 year 2016 ready?

b. Could Regulation of the Head of BPOM No. 13 year 2016 protect and counterpoise the interests of all stakeholders (community, academics, industry (large and small industries / UMKM) and the government?

c. Is through the Regulation of the Head of BPOM No. 13 year 2016, government can guarantee to improve quality of functional food, protect consumers over food safety, quality and nutrition and create business competitiveness?

2) Identification of Purpose

The purposes achieved by Regulation of the Head of BPOM Number 13 year 2016 are to guarantee the quality of functional/claimed food, protect consumers over food safety, quality and nutrition and create business competitiveness.

3) Alternatives of Problem Solution

Alternative solutions to overcome the problem are as follow:

a. Continuing the Regulation of the Head of BPOM Number 13 Year 2016.

b. Revising the Regulation of the Head of BPOM Number 13 Year 2016 (with addition of certain articles).

c. Revoking the Regulation of the Head of BPOM Number 13 Year 2016.

4) Benefits and Costs Analysis

Cost Benefit Analysis or CBA is an approach for policy recommendations which allows analysts to compare how much loss or costs incurred, advantages or benefits derived from policy implementation.

3.2 Regulation Analytic Hierarchy Process (AHP) with Cost Benefit Analysis (CBA) Model

Analytic Hierarchy Process (AHP) designed to comprehend expert perceptions with certain problems through procedures which devised to reach preference level among various alternative sets, so that this method considered as objective - multi criteria model (Permadi, 1992).

The principle of AHP is grading each aspect, criteria of aspect indicator, indicators with comparison between factors, as well as policy or alternatives to be taken. Afterward, those aspects will be compared which of the highest benefits received, whether economic, social or environmental aspects. Finally, comprehending the policy that will be chosen, whether continuing the Regulation of the Head of BPOM Number 13 year 2016 concerning Claim Monitoring in Labels and Processed Food Advertisements. The following is a list of policy choices.

Table 3: Criteria of Policy Selection from Result B / C Ratio.

<table>
<thead>
<tr>
<th>B/C Ratio</th>
<th>Status quo, continuing the Regulation of the Head of BPOM No. 13/2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>= 1</td>
<td>Revise the Regulation of the Head of BPOM No. 13/2016</td>
</tr>
<tr>
<td>&gt; 1</td>
<td>Revoke the Regulation of the Head of BPOM No. 13/2016</td>
</tr>
</tbody>
</table>

1. Status quo, continuing the Regulation of the Head of BPOM No. 13/2016: Policy Alternative 1

Experts argued that certain rules regarding to functional food in Indonesia is unrequired. It has been ruled by the existing Food Claims regulation, because its social benefits will be less than costs that may be incurred (cost> benefit).

2. Revise the Regulation of the Head of BPOM No. 13/2016: Policy Alternative 2

Similar to Status quo, nevertheless given improvements from existing regulations. Experts argued that it is quite necessary to have particular rules regarding to functional food in Indonesia by appending certain clause on the existing Food Claims regulation, because its social benefits will be equal to costs that may be incurred (cost = benefit).

3. Revoke the Regulation of the Head of BPOM No. 13/2016: Policy Alternative 3

Experts argued that it is absolutely necessary to have particular rules related to functional food in Indonesia. Functional food must be clearly regulated, so it should revoke the Regulation of the Head of BPOM No. 13/2016 and replace it with a more macro regulation towards Functional Food, because the social benefits will be greater than its costs that may be incurred (cost < benefit).
result of FGD and information of related parties. Some experts are liaison unit of:

1. Nutrition and Health Programme, Faculty of Public Health and Nursing, UGM
2. Department of Agricultural Product Technology, Faculty of Agricultural Technology, UGM
3. Faculty of Agriculture, UGM
4. Department of Nutrition, Faculty of Human Ecology, IPB
5. Department of Food Technology, Faculty of Agricultural Technology, IPB
6. Department of Agricultural Product Technology, Faculty of Agricultural Technology, Brawijaya University
7. Nutrition and Public Health Study, Faculty of Medicine, UNDIP
8. Faculty of Agriculture and Animal Husbandry, UNDIP
9. National Standardization Agency (BSN)
10. Indonesian Association of Food and Beverage Entrepreneurs (GAPMMI)
11. Food Researchers at the Indonesian Institute of Sciences
12. Indonesian Functional and Nutraceutical Food Activist Association (P3FNI)

3.3 Result of AHP Analysis with CBA Model

Based on data and experts, the result shows the main aspect from cost of functional food regulation is environments by 0.467. Furthermore, it is also the most important aspect in terms of benefits of functional food regulation by 0.5781. Hence, the outcome of regulation for functional food policies in Indonesia will cause greatest costs toward environments aspect compared to social and economic aspects.

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Benefit</th>
<th>Cost</th>
<th>B/C Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social</td>
<td>0.1319</td>
<td>0.141</td>
<td>0.9</td>
</tr>
<tr>
<td>Economic</td>
<td>0.2990</td>
<td>0.392</td>
<td>0.7</td>
</tr>
<tr>
<td>Environments</td>
<td>0.5781</td>
<td>0.467</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Table 4 shows that the greatest social and benefit cost are environmental aspect, followed by economic and social. Therefore, it has became a reason for regulation of functional food policies in Indonesia. Based on table 5, it can be analyzed that according to expert in terms of costs and benefits of priority for alternative policy is alternative policy 3, that is to revoke the Regulation of the Head of BPOM No. 13/2016.
Table 5: Recapitulation of calculation for Social Benefit and Cost.

<table>
<thead>
<tr>
<th>Policy Alternative</th>
<th>Social Cost</th>
<th>Priority</th>
<th>Social Benefit</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.335</td>
<td>2</td>
<td>0.309</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>0.210</td>
<td>3</td>
<td>0.165</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>0.454</td>
<td>1</td>
<td>0.525</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 6: Result of AHP Analysis with CBA Model in determining Policy alternative of Functional Food Regulation in Indonesia.

<table>
<thead>
<tr>
<th>Policy Priority</th>
<th>B/C Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revoke the Regulation of the Head of BPOM No. 13/2016</td>
<td>1.15</td>
</tr>
<tr>
<td>Revise the Regulation of the Head of BPOM No. 13/2016</td>
<td>0.785</td>
</tr>
<tr>
<td>Status quo, continuing the Regulation of the Head of BPOM No. 13/2016</td>
<td>0.923</td>
</tr>
</tbody>
</table>

From Table 6, the most likely policy priority is revoke the Regulation of the Head of BPOM No. 13/2016 that result to optimal scenario wherefore B/C > 1 by 1.15. Whereas second priority alternative is revise BPOM Head Regulation No. 13/2016 gives small benefit value with a B/C ratio by 0.785, this second alternative is not a priority because B/C < 1. Likewise third priority alternative Status quo, continuing BPOM Head Regulation No. 13/2016 gives the smallest benefit value with a B/C ratio by 0.923, and because B/C < 1 this alternative is also not a priority.

4 CONCLUSIONS

We hope you find the information in this template useful in the preparation of your submission. Based on results of AHP analysis for benefits and costs, the most likely policy priority is revoke the Regulation of the Head of BPOM No. 13/2016 that result to optimal scenario wherefore B/C > 1 by 1.15. Whereas second priority alternative is revise BPOM Head Regulation No. 13/2016 gives small benefit value with a B/C ratio by 0.785, this second alternative is not a priority because B/C < 1. Likewise third priority alternative Status quo, continuing BPOM Head Regulation No. 13/2016 gives the smallest benefit value with a B/C ratio by 0.923, and because B/C < 1 this alternative is also not a priority.

Revoking regulation of the Head of BPOM No. 13/2016 indicates that interviewees or resource persons eager to restored Regulation of the Head of BPOM HK.00.05.52.0685 Year 2005 about the Basic Provisions for Functional Food Supervision.

ACKNOWLEDGEMENTS

Thanks to the Directorate of Industrial Technology Development, the Directorate General of Research and Development Strengthening, Ministry of Research, Technology, and Higher Education who has funded this research through the National Innovation System Research Program (INSINAS) Program in 2018-2019. Priority Field Based on LPNK RISTEKDIKTI Flagship, with reference to the theme: Theme 1 Development of Local Resource-Based Functional Food WBS 6 Social, Economic, Policy, and Management, including identification of potential food-based local food, Education / Awareness, Behavior and Parenting, Economic, Social and Cultural Impacts, and Regulations, Policy and Management.

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