

ANALYSIS OF SCHOOL SNACK-VENDING STAKEHOLDERS:  
IN CONTRIBUTING TO BETTER NUTRITION FOR SCHOOLCHILDREN  
IN RURAL INDONESIA

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ABSTRACT

**Background**

Indonesia ranks the fifth in the world by the number of undernourished people (million) after India, China, Pakistan and Ethiopia (FAO, 2015). The number has been high due to large population base. In the past decade, significant improvement in reducing the undernourished rate has been achieved. However, the improved statistics only represent a snapshot of the country's overall performance. The figure does not account for differences in undernutrition between the urban and rural area. As emphasised in the World Health Organisation (2010) and the World Bank (2013)'s reports, malnutrition rate among rural children in Indonesia remains relatively unchanged, despite the income per capita in the rural area has grown 5 folds in the past decade. Research which kept track of food recall at consistent intervals and conducted anthropometry in children age 1-12 years in a rural village in West Java, Indonesia shows that the stunting and underweight rate is more prevalent among the children who consume more snacks than those who consume less snacks (Sekiyama et al, 2012). Thus, snack foods consumption can be accounted for poor nutrition of rural children.

Nonetheless, little is known about the snack vendors despite being the key food providers to children. In light of limited literatures exploring the school snack vendors in developing countries, this research aims to identify the factors influencing the snack vendors' decision-making to understand what motivates the vendors to use low-cost ingredients and to examine the potential for snack vendors to use the more nutritious ingredients. This research seeks to

contribute to better design the nutrition intervention targeting to change the school snack vendors' behaviour for the purpose of improving nutrition among schoolchildren in rural Indonesia context.

## **Methods**

One intervention study and one follow-up study were conducted in August and November 2017 in Sukajadi and Sukajaya villages, West Java, Indonesia. Data collection process includes the nutrition intervention on school snack vendors as part of GFE Indonesia; whereby the vendors attended the nutrition session, followed by an assignment to create the healthier snacks, 2-day selling trials and evaluation. The follow-up study tracked the continuance of selling those healthy snacks, including interviewing the children, the parents and the teachers.

In order to understand how the vendors' decisions are influenced by the behaviour of other stakeholders, current interactions among stakeholders was examined using stakeholder analysis method. Snack Mapping adopted by FAO (2006) was performed in order to collect data on the snack items, price, main ingredients and nutritional component in the study area. Exploration of Food Suppliers was also performed to collect data of the price of reported ingredients, and to analyse the food supply chain surrounding the snack vendors.

## **Results and Discussion**

The majority of primary school children receive Rp 5,000 (US\$ 0.37 in 2018) as daily pocket money. Whereas most of the snacks cost Rp 1,000 (US\$ 0.07) and 2,000 (US\$ 0.15) and Rp 2,000 is the maximum price that most of the interviewed children can afford, the children therefore tend to buy 3-4 portions of snack per half-day school hours. It was observed that the

children would buy the traditional, salty, vendor-made snacks with spicy taste first, followed by processed sweet snacks. This preference generates demands for these two types of snacks.

The parents, while perceiving the snacks to be of relatively low quality and low nutrients, still give certain amount of pocket money for the children to buy snacks. The basis for giving such amount is mostly affordability, although some parents give such amount upon the children's request. The interviewed parents understood 'healthy snacks' as the ones that are cleanly prepared and prefer to educate the children instead of engaging with the snack vendors and the school for improved quality of snacks.

Except for a limited involvement by one of the schools in the study area, the schools do not supervise the vendors despite the national policy mandates the schools to monitor the snack vendors. The schools will only take initiative when the children become sick after eating the snacks. Hence, 'healthy snacks' for the schools are the ones that do not make the children sick.

The parents and the schools' behaviour do not constrain the vendors' decision. However, the children's daily pocket money amount influences the snack pricing. The children's snack-buying behaviour also determines the types of snack which the vendors consider selling. Moreover, the findings reveal that certain intervened vendors are financially distressed, as their snack-vending are not profitable. The financial constraint is further aggravated for the vendors who is the only income earner of their family. Driven by these earning deficits, certain vendors are strongly reluctant to change their ingredients to the healthier ones. Some vendors, in contrast, change to the more profitable type of snacks.

One lesson learned from the Intervention is that it is still possible for the snack vendors to add more nutrients to their snack while maintaining the profit. This lesson should be replicated to encourage the school snack vendors to sell healthy snacks.

## **Conclusion**

This research identifies the factors affecting the snack vendors' decision in choosing the types of snacks and the types of ingredients. They are the vendors' financial constraints, the price cap or affordability, and the children's preference. Vendors have easy access to both nutritious and non-nutritious ingredients. However, the vendors are not incentivised to use nutritious ingredients, as those 'healthy' ingredients are costlier, not available all year-round, require more preparation and have short shelflife. Consequently, the vendors' options for ingredients turn towards processed products and artificial food additives, as using those will yield more profits.

*Keywords:* snack vendors, schoolchildren, stakeholder analysis, rural Indonesia

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