3R Kenya Project Practice Brief 012

What the newspapers say about milk safety in Kenya and whether consumers trust and value the information

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Background

The print media has a role in communicating risks and benefits of food quality and safety issues to the public, to raise awareness. How well do they play this role? Readily accessible risk-benefit communication can foster consumer confidence in the food they consume, in addition to consumer protection and raised societal trust in the food safety governance system (Lockie, 2006; Frewer *et al.,* 2016; Henderson *et al.,* 2010; FAO/WHO, 2016). An effective risk-benefit communication would benefit the country's fast growing dairy industry – in protecting public health, sustaining trade and enhancing competitiveness of the dairy industry (MoLD, 2010; KNBS, 2016).

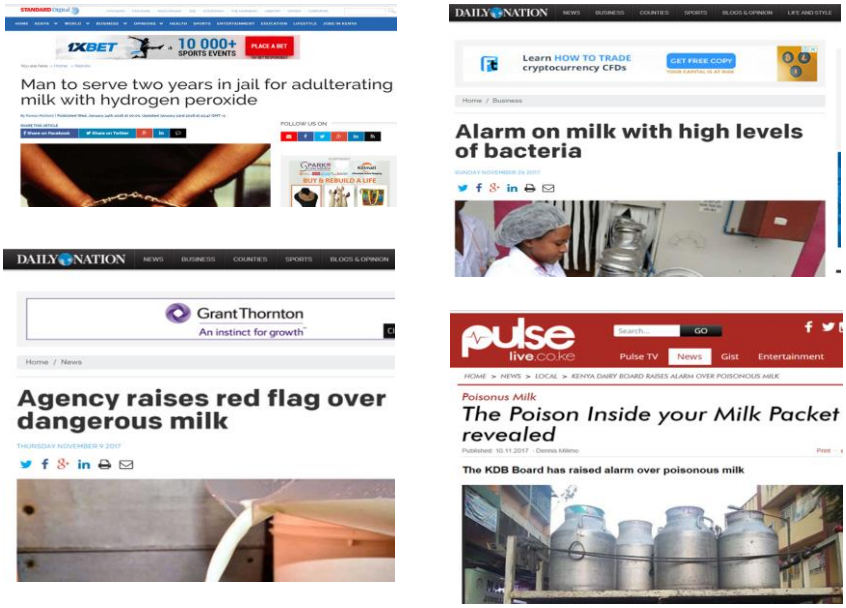

Figure 1: Examples of Kenya's print media reporting on milk quality and safety

In Kenya, the print media regularly publish articles on agricultural topics to inform and educate consumers. An example is the hotly debated topic of quality and safety of traded milk. This study elaborates the role of print media in this pervasive debate, using content analysis and a consumer survey to answer three research questions:

1. What is the prevalent thematic content about milk quality and safety?
2. What is the level of consumer trust in information about milk quality and safety published in the print media?
3. What is the degree to which consumers find media information on milk quality and safety educative?

The data for this study came from 215 articles published in five national newspapers (i.e. Daily Nation, Standard, Business Daily, The Star, and The East African) and from 368 consumers contacted at different milk market outlets in four major towns in Kenya.

Key messages

- At the moment, reorientation of the dairy industry to quality assurance and healthiness of milk and dairy products is of low newsworthiness from the perspective of the print media.
- Eight out of ten news items are addressing *'causes of poor quality and safety of milk'* and *'innovations for improving the quality and safety of traded milk'*. Apparently these two themes are considered to be of higher newsworthiness.
- Less prevalent themes are *'benefits of quality and safer milk'* and *'risks posed by poor quality and unsafe milk'*.
- The most prevalent topics were *poor milk hygiene* and *poor quality of feeds* as causes of concern. The articles linked these topics with *poor quality and safety of traded milk* and with *use of milk coolers and pasteurizers to enhance quality and safety*. This demonstrates that print media can be factual in reporting.
- Frequency of reading newspapers played a major role in consumer trust of published information on milk quality and safety. Those who frequently read newspapers highly trusted the print media information as compared to those who rarely read newspapers.
- Considering the low educative value of the information to consumers and higher trust among regular readers, collaboration between the media and the regulating authorities are recommended. Such partnerships should bolster the educative and informative value of print media in communicating risk-benefits. The media could thus play a complementary governance role. on food safety.

Findings and discussion

a. Content on milk quality and safety

Four themes were identified in the published articles on milk quality and safety, in order of prevalence:

1. "Causes" of poor quality and safety of milk (44%)
2. "Innovations" for improving milk quality (37%)
3. "Benefits" of quality and safer milk (11%)
4. "Risks" posed by poor quality and unsafe milk (9%).

This shows that the first two themes on *"causes"* and *"innovations"* were the most prevalent. The most prevalent content on causes was on *poor hygiene and poor quality feeds*, whereas on innovations the most prevalent was on milk *coolers and pasteurizers*. Other content that featured in the articles are listed in **Table 1**. Poor quality feeds are linked to prevalent aflatoxin AFM1 contamination in milk, which in raw milk can reach 84.3 percent of samples (Langat et al., 2016) and is attributed to feeding contaminated feeds because of poor handling and storage of animal feeds in the dairy farms (Makau et al., 2016).

The content reported under the theme "*benefits*" was on *income earned* and on *quality of the product*. The content featured within the theme "*risks*" was on *presence of antibiotic residues* and *use of unapproved chemicals*, either as preservatives or as additives.

Milk traded in Kenya exposes consumers to health hazards and risks from prevalent non-compliance with standards and from unethical behaviours. For instance, non-compliance in bacterial load is as high as 52.9% (Kashongwe et al., 2017) and increases along the value chain after the farm-gate (Ndung'u et al., 2016). There is prevalent presence of unsafe levels of hydrogen peroxides, aflatoxin, antibiotics and water adulteration and lower than specified levels of solids-non-fat (Orregård, 2013; Wanjala et al., 2017). These evidences support the need for consumer education in print media as well. In playing this role, the print media could strategically position themselves to foster reorientation of the dairy industry towards quality, safety, trust and transparency (Verbeke et al., 1999; Rademaker et al, 2016; USAID-KCDMS, 2018).

For the articles analysed, the print media demonstrated being factual in their reporting. They factually linked content on poor hygiene and poor quality feeds with poor quality and unsafe traded milk and with use of milk coolers and pasteurizers to enhanced milk quality and safety. The regulating agencies can capitalize on this virtue of factual reporting by the media to build consumer confidence, like holding regular factual briefings about the milk quality and safety situation in the country (Frewer et al., 2016).

Print media communication is however weak on content about the health hazards and risk exposure related to consuming poor quality, unsafe milk. The print media seem to attach low newsworthiness of this risk exposure to unsafe milk. The stories were not sensational and non-alarming. Rather than educating consumers, they communicate farming practice and business-related information, which are more relevant to producers and entrepreneurs. This suggests that the print media contribute little to food safety governance in the country. Consumer education on risks of poor quality and unsafe milk can influence milk purchasing behaviour of consumers and can trigger policy responses to protect public health (Grace et al., 2010; Ndambi et al., 2018). Kenya's print media could borrow a leaf from industrialized countries, whose content in media articles prominently features health hazards and risks exposure from non-compliance and unethical behaviours (Verbeke et al., 1999; Lockie, 2006; Zhu et al.,2019).

Table 1: Percent distribution of published articles for each theme on milk quality and safety in the major Kenyan print media over the period January 2014 to June 2018

Theme	Content	Articles (n)	
Causes		**94**	**44**
	Poor hygiene	32	15
	Poor quality feeds	24	11
	Milk adulteration	20	9
	Mastitis disease	9	4
	Not observing withdrawal period after treatment	9	4
Innovations		**79**	**37**
	Milk coolers and pasteurizers	39	18
	Milking machines	13	6
	Milk quality testing kits	10	5
	Milk processing facilities	6	3
	Solar milk cooling system	7	3
	Vending machine for milk retailing	4	2
Benefits		**23**	**11**
	More income	12	6
	Quality product	11	5
Health risks		**19**	**9**
	Presence of unapproved chemicals	11	5
	Presence of antibiotics	8	4
	Total	**215**	**100**

b. Consumer trust of print media information and how educative they find the information

The frequency of reading newspapers played a major role in consumers trusting published information on milk quality and safety. Those who frequently read the newspapers, highly trusted the print media information, as compared to those who rarely read them (**Figure 2**). This has implications for communication of risk & benefits of food safety to consumers. The communication should reach and be accessed by a larger population. The regulating authorities need to consider to enter into partnership with the media, in order to bolster the educative value for consumers of content published in the print media. This would provide access to a communication channel that quickly reaches a wider population of consumers.

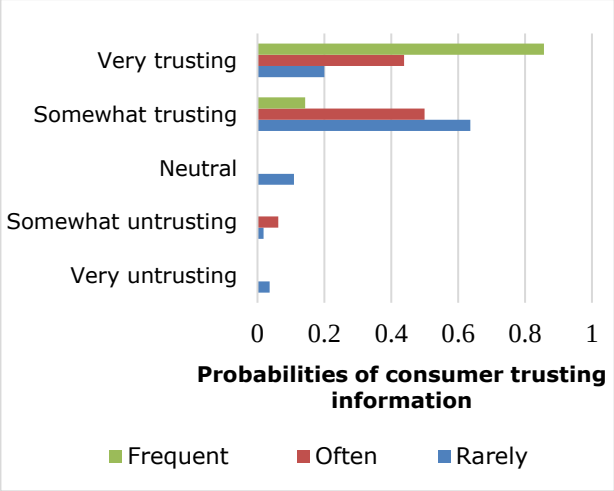

Figure 2: Conditional probabilities of consumers trusting information on milk quality & safety published in the print media articles, given their frequency of reading the newspapers

The findings indicate that the educative value of the published information to consumers depends upon the presence of the type of information on milk quality and safety. As illustrated in **Figure 3,** the highest probability (0.29) for educative value was on information about the benefits of high quality milk, while the lowest probability (0.14) was on information about the incentives associated with high quality milk. This underscores the need for print media to publish content that is educative to consumers (Meyers and Abrams, 2010; Zhu *et al.,* 2019).

The findings from this study indicate that consumers don't find the media articles educative in fostering their confidence in the food that they consume. Despite this, the articles are more likely educative to transporters, processors and milk traders in improving product safety and quality (Rademaker et al., 2016) given the dominant content themes identified in the study.

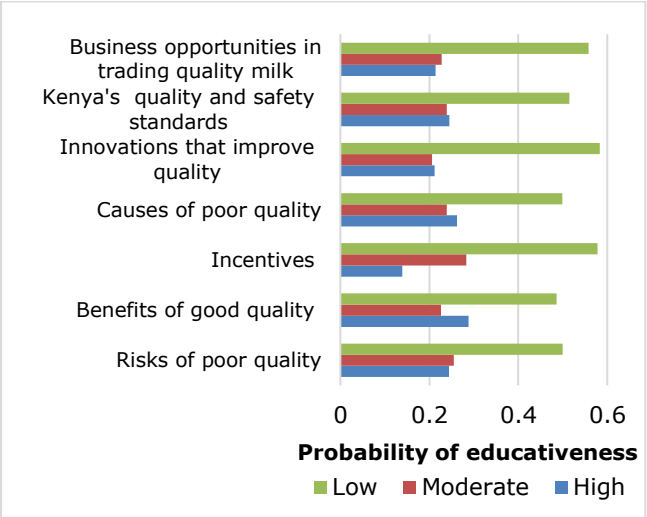

Figure 3: Conditional probabilities of information being educative to consumers about milk quality and safety when published in the print media articles

Conclusions

1. The content of print media articles is more educative to actors producing and handling milk and dairy products, as these articles primarily offer information about causes of poor quality and unsafe milk and about innovations that actors need to apply to improve product safety and quality.

2. The content is not very educative to consumers, whose trust of the print media increases with the frequency at which they read the newspapers.

3. As print media have an important role in food safety communication, their collaboration with the regulating authorities would bolster food risk communication and governance. This partnership should bolster, for consumers, the educative value of the content published in the print media and should enhance the role of print media in food safety communication and complementary governance.

4. At the moment, reorientation of the dairy industry to quality assurance and healthiness of milk and dairy products is of low newsworthiness from the perspective of the print media.

5. With prevalent noncompliance in quality and safety standards in the dairy industry, enhancing consumer awareness is essential in fostering reorientation towards quality, safety, trust and transparency.

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3R Kenya Project

The 3R Kenya (Resilient, Robust, and Reliable— From Aid to Trade) project is a learning initiative supported under the Agriculture and Food and Nutrition Security (FNS) program of the Embassy of the Kingdom of the Netherlands. 3R Kenya seeks to generate evidence and lessons from FNS and other related programmes that support competitive, market-led models in spurring agricultural development. It focuses on the aquaculture, dairy and horticulture sectors. 3R Kenya is executed at a time when Dutch government's bilateral relations in Kenya are transitioning from a focus on Aid to one on Trade to enhance the development of agri-food sectors. Through evidence generation and stakeholder dialogue, 3R seeks to contribute to an understanding of effective conditions for sustainable inclusive trade for transforming resilient, robust and reliable agri-food sectors.

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The brief is a summary of a more comprehensive research report available at http://www.3r-kenya.org/

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