Pricing and food security at Africa food markets

Accepted 26th October, 2020

ABSTRACT

The importance of markets and market participants for agricultural production and food security is widely recognized. In Ghana and other parts of rural sub-Saharan Africa, those farmers who sell their products and purchase food at local markets have endured localized pricing practices that are not standardized nor transparent to outsiders. The use of ad hoc traditional weights and measures for deciding crop prices is one prevalent practice at local markets in Ghana. These traditional practices have led to unfair pricing and profit loss for rural farmers. This study attempts to understand these murky traditional price-decision practices among marketers at Ghana’s local markets. Using a questionnaire survey among 137 marketers, we tried to understand how they make their price decisions. The survey results show that marketers mainly used four methods in deciding prices: (1) negotiations with market queens, (2) negotiations with individual buyers, (3) the use of traditional weights/measures, and (4) the compliance with market association/trade union rules. Leading marketers or market queens often dictated negotiations. These women exerted a significant influence on setting prices, which resulted in benefiting marketers more than farmers. Despite this existing influence of market queens, the respondents perceived that the introduction of standard weights and measures to their markets would improve their profit margins in the future. Based on these findings, this study recommends that farmers can secure more profits by eliminating ad hoc measures and standardizing price transactions would improve food insecure situations in rural areas.

Key words: Food security, Ghana, markets, weights and measures, Berekum, Techiman.

INTRODUCTION

Does market price affect food security? Some studies agree that price somewhat determines food availability at market and food system sustainability (Timmer, 2012; Timmer, 2014; Hebebrand and Wedding, 2010). Some even argue that market price is potentially a predominant factor for farmer’s production decisions or consumer’s purchase decisions (Tomek and Wedding, 2010).

In Sub-Saharan African countries, local markets have maintained traditional practices that are starkly different from what is being done at urban supermarkets (Antwi and Matsui, 2018; Adejobi et al., 2011; Quaye and Kanda, 2004; Yiridoe, 2005). With the hustle and bustle of local markets, where farmers, consumers, and truck pushers intermingle, numerous traders sell crops and other products, haggling over prices. Crop prices are primarily set by negotiations with the use of ad hoc traditional weights and measures. Customers and farmers often find themselves being short changed (Ivanić et al., 2008; Poole et al., 2003). Researchers found that marketers in Africa operate cartels that manipulate prices (Britwum, 2013; Lyon, 1999).

These traditional pricing practices greatly affect local livelihoods. In Ghana for example, local markets supply about 90% of household dietary consumption (Maxwell, 2001). Customers and farmers likely experience erratic price fluctuations (Aguda, 2009; Lyon, 2003; Poole et al., 2003) partly because the so-called market queens have control over crop pricing practices (Antwi and Matsui, 2018). According to the Ghana Statistical Service (2014),
agriculture is the least paid industry with an hourly income of GH₵0.70 ($0.12). Considering some socio-cultural factors that are integral part of Africa’s local market transactions, our understanding of Africa’s food security future can be enhanced by a further investigation of traditional food pricing practices. The objective of this study, therefore, is to understand how local marketers pricing practices occur at Ghana’s local markets. What are the main factors that make marketers decide prices? Before we discuss what we found on this question as a result of field surveys, we first discuss how historically these local market pricing practices took shape.

Pricing-setting mechanism in Africa’s local markets

During the colonial period, colonial governments in Africa set rules for agricultural markets (Afeikhena and Ogunkola, 2000; Fafchamps and Hill, 2008). Co-operatives and marketing boards were established to regulate prices at markets. These institutions continued to influence pricing practices at markets until the 1980s when independent governments dismantled the colonial institutions and left individual farmers responsible for marketing their crops.

These changes affected African countries differently. In South Africa, for example, the deregulation of these boards in the maize market resulted in a viable market mechanism by increasing competition (Jordaan and Grové, 2010). In Uganda, deregulation resulted in price manipulation by local authorities without properly informing farmers about price setting standards (Fafchamps and Hill, 2008). Nigeria’s local markets experienced highly unstable price fluctuations for rice, maize, and beans (AkinFittunde et al., 2012). Senegal experienced high price instabilities at vegetable markets (David-Benz et al., 2005).

In 2013, the Ghanaian government attempted to standardize weights and measures that are to be used at local markets so that price fluctuation can be minimized, making it more reliable for the international trade to have access. However, this policy has not been incorporated into local market transactions. Government authorities have been puzzled by this quiet resistance to this new policy as its new policy sounded beneficial for both customers and farmers. No study so far has analyzed factors that help better understand how market queens and individual marketers set prices. For this, we need to understand the socio-cultural aspects of market transactions.

METHODOLOGY

Study areas

This research focuses on two local markets in the Brong Ahafo Region. This region is one of the critical food supply areas in Ghana. It has played an important role in food marketing between Ghana and her neighboring countries in West Africa. Two municipalities (Berekum and Techiman market centers) were selected for the survey. The research on food security identified four important points in understanding food security conditions:

1. the availability of food on farms and markets
2. access to food by all households
3. appropriate utilization of food
4. the stability of the food system (Fisher and Lewin, 2013). In this Region, moderately increasing food prices have been observed partly because local agricultural production has decreased (Timmer, 2014).

Berekum market is the major market center for all farmers in the Municipality and one of the biggest markets in the Brong Ahafo Region. It is located in the northwestern part of the Region with a population of 159,950 (GSS, 2019). About 57% of its working population belong to the agricultural sector. The major crops cultivated are maize, yams, vegetables, cassava, cocoyam, plantains, cacao, cashews, citrus, and mangoes. There are eleven market centers in the Municipality. The market attracts people from all neighboring districts and adjoining Cote D’Ivoire. It is closely connected to neighboring markets, such as Berekum Central Market, Berekum Newtown Market, Jinijini Market, Koraso Market, Senase Market, and Kato Market.

Techiman market supplies food from northern Ghana to southern Ghana. It also supplies food to Techiman Municipality residents. The Municipality has a population of 182,810. The history of this market hub goes back to the fifteenth century when the trans-Saharan trade route was actively used (Nezic and Kerr, 1996). Techiman market is one of the largest agricultural produce markets in the country. It attracts people from other West African countries like Mali, Burkina Faso, Nigeria, Cote D’Ivoire, Togo, and Niger. Within Ghana, it influences the product supply and demand from major cities like Kumasi, Accra, and Cape Coast.

Data collection and analysis

A questionnaire survey was carried out in September and October 2018 among 137 marketers (60 at Berekum and 77 at Techiman). About eight officers from the Ministry of Food and Agriculture (MOFA) helped us conduct the survey. Random sampling was employed. Informal interviews were intended to allow marketers express their free opinions. Also, we partnered with some of the marketers to observe their activities during marketing hours (8 am-5 pm). A more extensive discussion on bargaining assumptions was elicited. Marketers interviewed were categorized into wholesalers, retailers, and market queens/leaders. Some of them were both wholesalers and retailers.

The questionnaire had four parts. The first part
attempted to identify the socio-demographic characteristics of the respondents, including their age, role at the market, experience, education, and association membership. The second part sought to identify their practices at the market. In the third part, we tried to understand how the respondents set prices when they buy products from farmers and sell them to consumers. The last part attempted to clarify their perceptions about adopting standardized weights and measures. All questions were designed in English and translated into the local language called Twi to communicate better with the respondents at the two markets. This is the dominant language used in these two markets. We also obtained permission and support from local extension officers in distributing the questionnaire. The lead author has experience in this Region as an agricultural extension officer for the Ministry of Food and Agriculture.

The responses to our questionnaire were coded and analyzed using Excel. Frequencies and percentages were used for the analysis of respondents’ socio-demographic characteristics, price determination, and perceptions about using weights and measures.

RESULT AND DISCUSSION

The first part of our questionnaire identified the respondents’ socio-demographic characteristics. We found that 87% were women as shown in Table 1. Female dominance at local markets is the norm in many parts of Africa, including the two markets we surveyed (Matsui, 2019). Techiman market, however, tends to have a number of male marketers who tend to deal with large-scale trades. Regarding the age distribution of the respondents, 40% belonged to the age group of 30-39, and about 35% to 40-49 age group. Here no substantial difference between the two markets was observed. The education level of the respondents showed that 36% had no formal education and another 29% had only primary education. These marketers mainly learned about trading from their parents. Two individuals at, Techiman had bachelor's degree. In both markets, about half of the respondents had 1 to 10 years of experience. The rest had mainly 11 to 30 years of experience at the markets. Only 2% had more than 30 years.

At both markets, marketers’ roles were clearly defined. About 62% of the respondents were involved in retail
activities, and 18% worked as both retailers and wholesalers. Compared with Berekum, Techiman market had more marketers who worked both as retailers and wholesalers. They transport products directly to major market centers across Ghana and other countries.

Factors that influence marketers’ price decision

Beside demand and supply or seasonality, we observed that marketers at these two markets set prices based on four methods:

1. negotiations with market queens
2. negotiations with individual buyers
3. the use of traditional weights/measures
4. the compliance with market association/trade union rules

We asked the respondents about which methods they used in setting prices with multiple choice. The result shows that about 99% used traditional weights and measures and 91% negotiated with individual farmers. About 39% negotiated with market queens, and 40% followed association rules.

Here we found substantial differences between the two markets. Compared to Techiman, Berekum marketers tended to negotiate with market queens (73%) and followed association rules (83%). At Techiman, a small proportion of marketers did so with market queens (10%) and followed association rules (6%). We observed that Berekum marketers were more closely connected to local practices where traditional leaders tend to have a substantial influence on economic activities as shown in Table 2. Also, rural areas in Ghana tend to have many agricultural associations for specific crops or tribes. These associations are headed by market queens who decide member ship and trade items. These queens sometimes negotiate prices for their members. They also manipulate prices especially for products they bring into the market.

Table 2: Marketers’ price determination at Berekum and Techiman markets.

<table>
<thead>
<tr>
<th>Mechanism for setting prices</th>
<th>Berekum (%)</th>
<th>Techiman (%)</th>
<th>Total Response (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Negotiation with market queens</td>
<td>73</td>
<td>27</td>
<td>10</td>
</tr>
<tr>
<td>Negotiation with individual buyers</td>
<td>97</td>
<td>3</td>
<td>86</td>
</tr>
<tr>
<td>Using traditional weights/measures</td>
<td>100</td>
<td>0</td>
<td>99</td>
</tr>
<tr>
<td>Using Standard weights and measures</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Follow market association/trade union</td>
<td>83</td>
<td>17</td>
<td>6</td>
</tr>
</tbody>
</table>

Marketers’ perceptions about using standard weights and measures

In the final section of the questionnaire survey, we tried to understand how the respondents perceived the meaning of introducing standard weights and measures to their businesses. The respondents were presented with four statements and asked about their agreement/disagreement by using Likert-scale as shown in Table 3.

The result shows that 81% of the respondents strongly agreed that the standard weights and measures could improve their profits. About 69% strongly agreed or agreed that standard weights and measures better inform consumers about their product quantity and quality. Also, 73% strongly agreed or agreed that the introduction of standards would allow local markets to compete with the supermarket. About half (55%) saw standard weights and measures as a tool to encourage commercial trade internationally. Our responding marketers who had previous experiences in using standard weights and measures suggested that these could reduce market transaction inefficiencies for agricultural products.

Table 3: Respondents’ perceptions about using standardized weights and measures.

<table>
<thead>
<tr>
<th>Perception</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Not sure</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve profit</td>
<td>81</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>19</td>
</tr>
<tr>
<td>Better inform consumers</td>
<td>24</td>
<td>45</td>
<td>25</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Can compete with supermarkets</td>
<td>29</td>
<td>44</td>
<td>9</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>Encourage commercial sales</td>
<td>55</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>45</td>
</tr>
</tbody>
</table>

CONCLUSION

This study has examined current pricing practices at two typical local markets in Ghana: one plays an important role in selling local produce and the other influences nationwide transactions. The result of our questionnaire survey confirmed our field observation that marketers at the two local markets set prices largely by using traditional weights and measures. Regarding the future prospect of using standardized weights and measures at these markets, 81% of the respondents strongly believed that these standards would improve their profits. In our interview, they emphasized the relevance of having standards to help inform consumers about products and compete with
supermarkets or international markets where standards are well established. Another important finding was that standard weights and measures could benefit both farmers and marketers during price transactions. In Ghana and many other parts of African countries, rural families depend on local markets for supplies. Therefore, based on these findings, we argue that government authorities engage more seriously in discussion with farmers’ and marketers’ organizations about benefits of introducing standard weights and measures at local markets.

REFERENCES


Submit your manuscript at

http://www.academiacpublishing.org/journals/ajar