

BAMBARA MARKETING MARGINS ANALYSIS IN GHANA

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Abstract

The study identified the distribution channels for bambara by tracing the movement of bambara grain from the producing centres to the consuming centres, examined the socio-economic background of producers and traders in the marketing system and analyzed bambara marketing margins using data on prices at the various levels of the distribution channel. The results indicated that approximately 35 per cent of volumes of bambara produced were utilized by the producer-households either as food and, for seed. Pricing was based largely on negotiation bargaining power, rather than the true value of the product, and the position of the producer in price formation was weak. The total gross marketing margin ((TGMM) for bambara was estimated at 41.66 per cent with producer participation margin (PPM) of 58.34 per cent. Total marketing charges was approximately 11 per cent of the retail price.

Introduction

Very little research has been done on bambara groundnut (*Vigna subterranea* L. Verdc) in Ghana, and the crop is, thus, considered as a forgotten crop though its nutritional and food security importance cannot be overemphasized. It is a well-balanced food in terms of protein, carbohydrate and lipid content, with low levels of anti-nutritional factors. Bambara has high processing potential which needs to be explored. A recent research on bambara by Azam-Ali & Squire (2001), with special interest in utilization and marketing prospects, is a typical example of how the potential of any under-utilized crop can be assessed and utilized through multidisciplinary research effort (Scott, 2003).

Bambara marketing margins research (BMMR) was one of the activities under the high quality bambara flour (HQBF) technology transfer programme funded by the Crop Post Harvest Programme (CPHP) of the UK Department for International Development (DFID). The term, marketing margin, is commonly used to refer to the difference between producer and consumer prices of an equivalent quantity and quality of a

commodity (Tomek & Robinson, 1990), as shown in the equation below:

$$\text{TGMM} = \frac{\text{Retailing Price} - \text{Farm gate Price}}{\text{Retailing/Consumer Price}} \quad (1)$$

However, it may also describe price differences between other points in the marketing chain (Brorsen *et al.*, 1985). It is a price charged for providing a mix of marketing services such as assembling, transportation, handling, packaging and storage plus profit.

Under competitive conditions, the size of marketing margins would be the outcome of the supply and demand for marketing services, and would equal the minimum costs of service provision plus 'normal' profit. Normal profit refers to the least payment the owner of an enterprise would be willing to accept for performing the entrepreneurial function including risk-taking and management. However, under oligopsonistic conditions, collusive price-setting behaviour that weakens the position of the farmer exists. This causal relationship implies that equity issues can be resolved by improving market structures.

Marketing margins are major determinants of the efficiency of resource allocation in production, distribution and consumption. They are important means of assessing the efficiency of price formation and transmission through the distribution system. Some researchers argue that lowering of marketing margins are the most efficient and sustainable short-run means of solving the dilemma between producer's desire for higher prices and consumer for lower food prices (Arndt *et al.*, 2000; Wohlgenant, 2001; Vavra & Goodwin, 2005). However, it should be noted that unless marketing is competitive, lowering the cost of marketing would not necessarily benefit producers or consumers. Similarly, unless consumers' preferences are responded to, lowering marketing margins will not benefit them. Thus, improving technical or operational efficiency without simultaneously addressing exchange or economic efficiency prevents such potential from being realized (Abdulai, 2002).

Components of marketing costs and margins are of interest to decision makers and stakeholders because such knowledge can serve as the basis for reducing inefficiencies in the marketing system through innovative interventions at the appropriate levels of the distribution channel. Marketing has an intrinsic productive value because it adds time, form, place and possession utilities to products and commodities. Through the technical functions of storage, processing and transportation, as well as exchange, marketing increases consumer satisfaction (Smith *et al.*, 1999). As incomes and populations grow and agricultural specialization increases, there is an increased demand for marketing services. The role of markets in encouraging increased production through price incentives is, therefore, crucial.

The objectives of the study were: 1) to describe the distribution channel for bambara by tracing the movement of raw bambara grain from the producing centres to the consuming centres, 2)

to investigate the general socio-economic background of producers and traders in the marketing system, and 3) to analyze the gross, marketing margins at the various levels of the bambara distribution channel.

Experimental

Sampling procedure

Using background information on bambara production, two main seasons, which adequately reflect the relevant bambara marketing cycles, were identified and considered in data collection. These included (1) the period before storage, characterizing the main harvesting season, and (2) period after storage when a lot of farmers were willing to sell off their produce; supply and demand conditions normalized and marketing activities were seen to be relatively competitive. Considering space (spread of players involved in bambara marketing), and the time and availability of resources, a total of 50 traders from market centres and 50 producers from production areas were purposively selected for structured interview. Producers interviewed were those who visited local markets to sell their own produce.

Questionnaire design and data collection

Primary data was collected using a structured questionnaire. An informal interview, noting responses and observing the marketing process, was conducted simultaneously with the formal survey. This allowed for generation of qualitative information which could not be captured in the structured questionnaire. The structured questionnaire modules consisted of coded questions covering information on producers, and traders' socio-economic profile, description of sale, marketing services and costs, as well as selling prices. Data on destination of major customers of producers and traders, major sources of supply, factors affecting volumes traded, and mode of price determination were also collected. In addition to coded questions, there were open-ended questions to allow

respondents discuss freely the particular marketing issues of concern to them.

Survey areas

The survey was conducted in selected bambara production and marketing centres in Ghana. In the production centres, producers were interviewed at Zinindo, Zamashiegu Nyamkpala, Savelugu and Tampiong, all in the Northern Region of Ghana. In the marketing centres, traders were interviewed in the Northern Region, Tamale, Nyamkpala and Savelugu in the Northern Region and Techiman in the Brong Ahafo Region.

Analysis of data and estimation procedure

Responses were coded and analysed using Statistical Package for Social Sciences (SPSS) and Microsoft Excel. The marketing margin analysis was based on gross figures since return on capital and imputed earnings by the middlemen in the distribution of many agricultural commodity chains is often difficult to determine. Marketing margins analysis using the estimation procedure is presented below:

$$TGMM = \frac{\text{Retailing Price} - \text{Farm gate Price}}{\text{Retailing/Consumer Price}}$$

$$TGMM_{RA} = \frac{\text{Rural Assembler Price} - \text{Farm gate Price}}{\text{Retailing /Consumer Price}} \times 100 \quad (2)$$

$$GMM_W = \frac{\text{Wholesale Price} - \text{Rural Assembler Price}}{\text{Retailing /Consumer Price}} \times 100 \quad (3)$$

$$GMM_r = \frac{\text{Retailing Price} - \text{Wholesale Price}}{\text{Retailing /Consumer Price}} \times 100 \quad (4)$$

$$GMM_p = 100\% - TGMM \quad (5)$$

$$NMM = TGMM - TMC \quad (6)$$

where TGMM denotes Total gross marketing margin

GMM_{RA} = Percentage of the total gross marketing margin received by the rural assembler;

GMM_w = Percentage of the total gross marketing margin received by the wholesaler;

GMM_r = Percentage of the total gross marketing margin received by the retailer;

GMM_p = Producer participation margin;

TMC = Total marketing charges expressed as a percentage of retail price;

NMM = Net marketing margin.

Results and discussion

Socio-economic profile of respondents and gender issues

Basically the social aspect of marketing of agricultural commodities is quite strong and bambara marketing is no exception. Because of long term involvement in trading activities, farmers

have a strong trust-built relationship with itinerary traders and, to some extent, with

- (1) the market-based traders. Unfortunately, in the case of bambara, the relationship between producers and traders did not reflect in informal understanding with respect to provision of credit, market assurance, process of buying and assistance in case of other social needs as seen in the marketing of other agricultural commodities. As shared among many agricultural marketing researchers, such relationships develop when volumes traded are high (Heide & John, 1990; Han *et al.*, 1993; Morgan & Hunt, 1994).

- (2) Descriptive statistics on bambara producers with respect to production levels, yields and volumes traded attest to the above assertion (Table 1).

Table 1 presents a summary of socio-economic profile of bambara producers

interviewed. Primarily, bambara cultivation was dominated by men but, generally, marketed by women. Men formed about 93 per cent of producers interviewed. They were married and mostly Moslems with no formal education. The

groundnut. Bambara was a minor crop in terms of acreage of cultivation but a very important food security crop to farmer households. The level of commercialization in the bambara industry was limited. Some of the producers interviewed, but

TABLE I
Socio-economic background of producers interviewed

<i>Characteristics</i>	<i>Percentage response</i>			
	<i>Male</i>	<i>Female</i>		
	92.7	7.3		
<i>Education</i>	<i>No education</i>	<i>Primary/ JSS/Middle</i>	<i>Secondary</i>	<i>Others</i>
	81.4	11.6	4.7	2.3
<i>Religion</i>	<i>Christian</i>	<i>Moslem</i>	<i>Traditionalist</i>	<i>Others</i>
	14.0	86.0	-	-
<i>Marital status</i>	<i>Married</i>	<i>Single</i>	<i>Separated/ Widowed</i>	
	95.3	2.3	2.3	
<i>Main occupation</i>	<i>Trading</i>	<i>Farming</i>	<i>Fixed salary</i>	<i>Others</i>
	4.7	93.0	2.3	-
<i>Secondary occupation</i>	<i>Trading</i>	<i>Others</i>	<i>NA</i>	
	4.7	20.9	74.4	
<i>Descriptive statistics</i>				
	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>SD</i>
<i>Age (years)</i>	20	65	37.88	12.30
<i>Family size</i>	2	33	8.33	5.31
<i>Area cultivated (acres)</i>	0.25	4	1.12	0.68
<i>Quantity harvested (bags)</i>	1	15	5.00	3.50
<i>Quantity utilized & seed (bags)</i>	0.1	5	1.63	1.27
<i>Quantity sold(bags)</i>	0.5	14	3.27	3.15
<i>Time of Sale after harvesting (months)</i>	1	8	5.50	1.20

study revealed that the main occupation of the bambara producers was farming. Other cereals and legumes cultivated by these farmers included maize, sorghum, millet, cowpea and

excluded from this analysis (because the study focused on participation of producers in the marketing chain) reserved all the bambara produced for home consumption.

The study revealed that approximately 88 per cent of the bambara traders interviewed were women, which compared favourably with results obtained by Baden (1998) on women's participation in agricultural marketing in West Africa. As evidenced in FAO (1993) report, women's participation tends to be highest where production, marketing and trading have been

retailing while the men were more interested in wholesaling activities.

Less than 3 per cent of the respondents interviewed had had formal education up to the middle school level. Like the producers, majority (92 %) were Moslems and married (80 %) with average family size of seven. These traders who also engaged in marketing of other legumes and

TABLE 2
Socio-economic background of traders interviewed

<i>Characteristics</i>	<i>Percentage response</i>			
	<i>Male</i>	<i>Female</i>		
	12.5	87.5		
Education	<i>No education</i>	<i>Primary</i>	<i>Secondary</i>	<i>Tertiary</i>
	97.5	2.5	-	-
Religion	<i>Christian</i>	<i>Moslem</i>	<i>Traditionalist</i>	<i>Others</i>
	7.5	92.5	-	-
Marital status	<i>Married</i>	<i>Single</i>	<i>Divorced</i>	<i>Separated/ Widowed</i>
	80.0	2.5	2.5	15.0
Main occupation	<i>Trading</i>	<i>Farming</i>	<i>Fixed Salary</i>	<i>Others</i>
	97.5	2.5	-	-
Secondary occupation	<i>Farming</i>	<i>Others</i>	<i>NA</i>	
	5	2.5	92.5	
Type of Trader	<i>Wholesaler</i>	<i>Retailer</i>	<i>Wholesaler/ Retailer</i>	
	20.5	33.3	46.2	
<i>Descriptive statistics</i>				
	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Standard deviation</i>
Age	22	63	41.75	10.26
Experience in bambara marketing (years)	3	40	18.65	12.04
Family size	3	20	7.27	3.48

least affected by commercialization and industrialization. Cross tabulation of respondents by sex against type of traders revealed a significant level of women's participation in

cereals had appreciable experience in bambara marketing; ranging from a minimum of 3 years to a maximum of 40 years, either as all year round traders or as seasonal participants (Table 2).

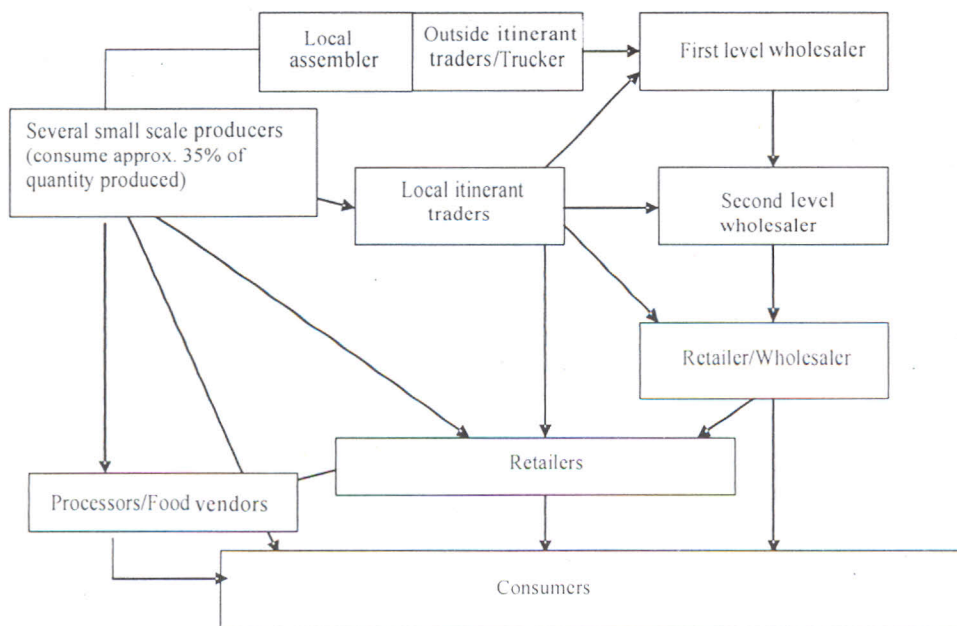


Fig. 1. Flow chart depicting distribution channels for bambara

Distribution channels

Distribution channels describe the linkages or transmission channels for goods from production sites to markets. For example, a distribution channel is represented as a flow-chart showing the movement of goods between various farm gates and markets (Fig. 1). At each level of the distribution channel, spatially separated market, defined in this study as a physical area where transactions were concluded, may be linked with each other through arbitrage (Lutz & Tilburg, 1997).

Unlike commodities with high level of utilization and commercialization and, therefore, several distribution outlets, bambara had relatively limited use with less distribution outlets. It is mostly produced in northern Ghana, and some parts of Brong Ahafo and Volta regions of Ghana, but its level of consumption was variable, highly location specific and largely influenced by tribe. Except for places where people of the northern decent

were dominated, consumption of bambara in southern Ghana was largely tied to the plantain harvesting season since consumption of fried plantain with bambara sauce was very popular in the south. The study revealed that, generally, farmers produced bambara purposely for subsistence and, to a limited extent, for sale. Although bambara farmers were engaged in the production of cash crops, they did not abandon the production of household food requirements, partly because the farmers did not have confidence that the market would supply food products when needed at affordable prices.

The study also revealed that while transporting bambara to the major market centres was decisively more profitable than selling in the farming communities, farmers preferred selling through the latter channel. This could be explained by lack of time on the part of the farmers and, or limited accessibility to the major markets. About 92 per cent of the bambara producers sold

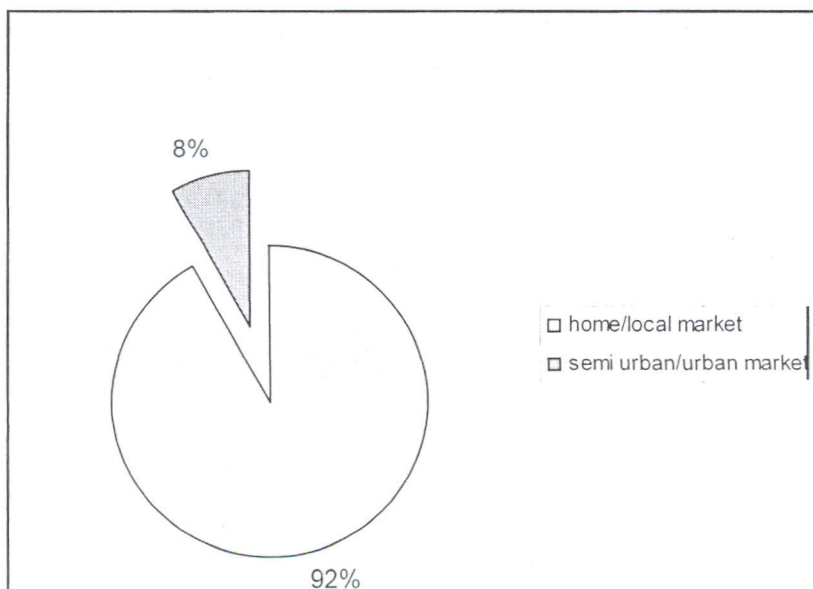


Fig. 2. Sales outlet of producers interviewed

TABLE 3
Description of some market centres visited

<i>Market</i>	<i>Location</i>	<i>Description</i>
Nyamkpala	Northern Region/Tolon Kumbugu District	Semi-rural market organized on a 3-day cycle.
Bolga	Upper East Region/Bolga District	Urban periodic market organized on a 3-day cycle. A new structured market.
Tamale	Northern Region/Tamale District marketing facilities.	Urban wholesale periodic market organized on a 6-day cycle. A well-developed market with
Techiman	Brong Ahafo Region/Techiman District	Urban wholesale market organized from Wednesday–Friday weekly. Relatively developed market with marketing facilities.
Savelugu	Northern Region/Savelugu Nanton District	Semi-rural market organized on a 3-day cycle

TABLE 4
Type of buyers at the local markets visited in production areas

<i>Type of buyer</i>	<i>Local markets visited (%)</i>				
	<i>Nyamkpala</i>	<i>Savelugu</i>	<i>Tampiong</i>	<i>Zinido</i>	<i>Zamashegu</i>
Local itinerant	40.0	22.2	-	-	-
Itinerant from outside	20.0	44.4	-	91.7	100.0
Retailer	-	22.2	9.1	-	-
Other farmers	40.0	-	-	8.3	-
Processors	-	-	63.6	-	-
Combination tick	-	11.2	27.3	-	-
Total	100.0	100.0	100.0	100.0	100.0

their produce at their homes or local markets. Producers who visited the semi urban and the urban markets did so because of proximity (Fig. 2). Generally, sales were conducted in May-June, averagely 5 months after harvest. Table 3 presents description of various markets surveyed.

About 51 per cent of producers interviewed relied on the activities of visiting itinerant traders only. These itinerant traders employed the services of local agents to assemble produce at the rural periodic markets, which were organized on a 6-day cycle. Producers who sold directly to local itinerant traders constituted about 12 per cent of the sample interviewed, while 6 per cent sold to retailers. A few (13%) bambara producers sold their produce to processors (both households and food vendors) directly on the local markets and about 10 per cent sold to other farmers. Table 4 presents information on dealers in the bambara trade.

Unlike other cereals and legumes, movements of bambara wholesalers were less guided by price signals and supply availability since price information was not readily available. There was high degree of variations in the marketing seasons. While peak bambara trading period occurred in the months of January-February in southern Ghana, coinciding with the plantain season, that of northern Ghana occurred in the

months of May-June, when other food crops were scarce. This suggested some level of collusive price-setting behaviour on the part of traders who had the capital and storage facilities to store bambara (since bambara has high storage ability and, therefore, could be kept for long periods at any stage of the distribution channel before selling). It was also noted that some amount of bambara was imported from Niger but the exact volumes were not estimated in the study.

Pricing

Prices, whether those received by farmers or charged to wholesalers, processors, and final consumers are the most important elements in the marketing system in influencing the contribution of agriculture to economic development. Major investments in the improvements of marketing infrastructure will be ineffective if the prices generated within the system are not cost-effective (Feldman & Ohene-Yankyerah, 1984). Data on prices at the various levels of the distribution channel were used in calculating the marketing margins.

Table 5 presents prices of bambara at the farm gate. For the purposes of this study, the farm gate price index, which formed the basis of comparison of prices for the marketing margins analysis, was generated from taking the average

TABLE 5
Analysis of farmgate prices

Areas visited	Descriptive statistics of farmgate prices / bowl (GH¢)			
	Minimum	Maximum	Mean	SD
Nyamkpala	0.50	0.60	0.55	0.08
Savelugu	0.50	0.70	0.53	0.10
Tampiong	0.45	0.60	0.50	0.08
Zinindo	0.45	0.60	0.46	0.93
Zamashiegu	0.45	0.60	0.47	0.58
Total average	-	-	0.50	-

TABLE 6
Price analysis at traders' level
Price per bowl at origin markets (GH¢)

	Peak season				Lean season			
	Min.	Max.	Mean	Std dev.	Min.	Max.	Mean	Std dev.
Bolga	0.50	0.55	0.52	0.0353	0.60	0.80	0.73	1.54
Savelugu	0.50	0.50	0.50	-	0.70	0.85	0.77	1.06
Tamale	0.40	0.60	0.50	0.0634	0.60	1.00	0.73	1.05
Nyamkpala	0.45	0.60	0.52	0.0487	0.70	0.95	0.77	1.07
Techiman	0.50	0.65	0.55	0.0583	0.90	1.00	0.92	0.04

Price per bowl at destination markets (GH¢)

	Peak season				Lean season			
	Min.	Max.	Mean	Std dev.	Min.	Max.	Mean	Std dev.
Bolga	0.60	0.60	0.60	-	0.90	1.00	0.95	0.07
Savelugu	0.60	0.65	0.65	0.07	0.95	0.95	0.95	-
Tamale	0.50	0.70	0.56	0.06	0.70	0.12	0.83	0.14
Nyamkpala	0.50	0.70	0.06	0.06	0.80	1.00	0.87	0.09
Techiman	0.55	1.00	0.64	0.11	1.00	1.10	1.02	0.04

of all the prices at the various production centres visited. It must be noted that in Ghana, most traders who handle cereals and legumes use the *koko bowl* measure. It is not uncommon for a trader to sell at the original purchase price; but because of the use of the measure as a unit, he

makes profit from changes in the weight of different bowl sizes. The rural assembler, wholesale and retail prices of bambara were also generated from the origin and destination price analysis for both peak and lean seasons (Table 6). The origin market prices were the prices

pertaining at the sources of supply while the destination market prices referred to prices at the demand side markets.

Unfortunately, there were seasonal variations in the prices in southern and northern Ghana. Peak bambara trading period occurred in January–February in southern Ghana, coinciding with the plantain season, while that of northern Ghana occurred in May–June when other food crops were scarce. Differences in harvesting and trading seasons created misinterpretation of peak and lean periods. In the case of bambara, peak trading period was not the harvesting period but rather

price of the other varieties. It was, however, indicated by some of the traders that the red variety from Niger was preferred mostly by consumers who used bambara for sauce.

Usually, producers who visited trading centres or urban and semi urban markets and supposed to be agents of price transmission to other producers, are deceived by the false weights of the bowl measure used. Supposedly, unattractive margins could, therefore, become disincentive for some farmers to transport their produce to such markets for sale. The urgent need for cash expressed by some producers influenced market price. Mode of payment at farm gate was purely

TABLE 7
Pooled responses on mode of price determination

Mode	Producer response (%)		Trader response (%)	
	No	Yes	No	Yes
Negotiation with a broker	97.7	2.3	91.9	8.1
Negotiation with a buyer	11.9	88.1	35.1	64.9
Certain mark-up on a buying price	88.4	9.3	73	27
Current Price	26.2	73.8	16.2	83.8
Price set by trader association	74.4	23.3	81.1	18.0
Price fixed by the owner	55.8	44.2	62.2	37.8

the time when farmers were willing to sell. At the time of harvesting, bambara was rarely seen on the rural markets and, therefore, signified the lean trading season. Pricing of bambara, like many agricultural commodities, was not controlled by any external force; the price of a commodity on the previous market day became the basis for negotiation. There were price differentials with respect to varieties on the market. Bambara varieties found on the markets were white, cream, red, dark and a mixture of all colours.

The study revealed that the cream or white variety attracted the premium price; a difference of GH¢1.00 per bowl of 2.4 kg above the selling

cash and carry. (Table 7). However, an appreciable level of retailing was on 'sale or return' basis.

Marketing margin analysis

Using the estimation procedure, the gross marketing margins at the various levels of the distribution channels were calculated. (Table 8). The key trader levels in the distribution channels identified include farmgate, rural assembly level, wholesale level 1, wholesale level 2 and retail level. Average prices at these levels were generated from producer and, or trader responses. The producer participation contribution was calculated by deducting the total

TABLE 8
Results on gross marketing margins analysis

Prices at various levels of the distribution channel	GH¢ per bowl	No. of bowls per bag	GH¢ per bag	Gross bag marketing margins (%)
Average farmgate price	0.50	35	17.50	-
Average rural assembler price	0.52	38	19.85	-
Average wholesale price (level 1)	0.61	38	23.06	-
Average wholesale price (level 2)	0.64	40	25.71	-
Average retailing price	0.75	40	30.00	-
TGMM	-	-	-	41.66
GMM _{RA}	-	-	-	7.82
GMM _{W1}	-	-	-	10.72
GMM _{W2}	-	-	-	8.83
GMM _R	-	-	-	14.29
GMM _P	-	-	-	58.34

TABLE 9
Marketing charges at various levels of the distribution channel

Cost item	Marketing charges (GH¢ per Bag)			
	Rural assembly	Wholesale level 1	Wholesale level 2	Retail level
Transportation	0.40	0.60	0.40	-
Storage	-	0.50	0.20	-
Market toll	-	0.10	0.10	0.05
Handling and packaging	0.20	0.40	0.20	0.10
Total	0.60	1.60	0.90	0.15

gross margin from 100 per cent as indicated in the estimation procedure. As revealed in the analysis, bambara producers interviewed did not indicate any marketing charges since sale of produce was mostly effected at their homes. Although bambara was stored for sometime before selling, farmers could not provide information on storage charges.

It must be noted that the differences in the number of bowl measures, constituting a bag at the various distribution levels, were considered

in the gross margin analysis. A bag of bambara contained an average of 35 bowls (84 kg) and 40 bowls (96 kg) at the farmgate and retail level, respectively, suggesting the need to standardize units of measurement for most agricultural commodities for efficient pricing system.

Results of the marketing margins analysis showed a total gross marketing margin of 41.66 per cent with producer participation margin of 58.34 per cent. Approximately 11 per cent out of

a total gross marketing margin of 41.66 per cent constituted the total marketing charges, giving a net marketing margin of 30.66 per cent. (Table 9) Although this suggested an appreciable level of abnormal profits reaped by traders, volumes traded were relatively low as compared to other cereals and legumes (Nyoro *et al.*, 1999; Pokhrel & Thapa, 2007). Again, disaggregating total net marketing margins by the key traders along the distribution channels indicated that retailers absorb a higher proportion of the total which compensated for the low volumes traded (Mauyo *et al.*, 2007). However, there was a fair representation of profit allocation among assemblers and wholesalers.

Conclusion and recommendations

Bambara cultivation was dominated by men but marketed mostly by women. Men formed about 93 per cent of producers interviewed while women formed 88 per cent of the bambara traders. Generally, bambara is a low volume traded produce at both wholesale and retail levels and has limited distribution outlets. Approximately 35 per cent of bambara produced was utilized by the producer-households either as food and, or seed. About 92 per cent of the bambara producers sold their produce at their homes or local markets because of convenience and the perception that traders were better placed to take marketing responsibilities. More than 50 per cent of producers interviewed relied on the activities of visiting itinerant traders.

Pricing was based largely on negotiation or bargaining power, rather than with the true value of the product. The position of the producer in price formation was weak. The total gross marketing margin for bambara was estimated at 41.66 per cent with producer participation margin of 58.34 per cent. Total marketing charges was approximately 11 per cent, giving a total net marketing margin of 30.66 per cent.

There is the need to develop consumer educational programmes focusing on the

contribution of bambara to health and nutritional requirements, as well as its unique flavour. Market expansion efforts should be focused on both bambara consumers and non consumers using value-based marketing strategy, since attracting new consumers to the bambara industry is the key to improving the level of price competition and extent to which the forces of supply and demand determine price. A viable bambara market information system should be developed to improve on price formation and transmission through the distribution system, as well as the efficiency of resource allocation among farmers and traders.

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