

# Liberalisation of Maize Procurement in Ghana and Implication on Women's Economic Empowerment

## *Case-Study of Market Queens in Selected Regions*



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**Appiah Kusi Adomako**  
Centre Coordinator, CUTS Accra

## Abbreviations

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ACE	Accra Commodity Exchange
ADB	Agricultural Development Bank
ADVANCE	Agriculture Development and Value Chain Enhancement
ATP	Agribusiness and Trade Promotion
CCH	Commodity Clearing House
CREW	Competition Reforms in Key Markets for Enhancing Social and Economic Welfare in Developing Countries
FBOs	Farmer Based Organisations
FEMATA	Federation of Market Traders Association
GFDC	Ghana Food Distribution Company
GGC	Ghana Grain Council
GMAG	Grain Marketing Association of Ghana
GOG	Government of Ghana
LIFFE	London International Financial Future Exchange
MOFA	Ministry of Food and Agriculture
MQ	Market Queen
MTA	Maize Traders Association
SAP	Structural Adjustment Programme
USAID	United States Agency for International Development
WACE	West Africa Commodity Exchange
WRS	Warehouse Receipt System

## Abstract

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The study presents analysis of liberalisation of maize procurement in Ghana and implication on women's economic empowerment. Specifically the study examined the activities of market queens (MQs) and their contribution towards women's economic empowerment and employment opportunities, price setting mechanisms, types of support provided by MQs to the farmers, support of the state and perception of MQs on the effect of the introduction of the commodity exchange in Ghana. Structured questionnaires were used to collect data from the respondents (maize market queens and maize farmers). Focus Group Discussions were also organised for all the two categories of respondents.

A descriptive analysis of the data shows that 52.4 percent of the maize traders are males and about 47.6 percent are females in the study areas. About 90 percent of the maize farmers are male while only 10 percent are female. Also about 71.4 percent of the traders are above 50 years while only 26.7 percent of the farmers are above 50 years. The prices at which the market queens buy maize from the farmers is influence by cost of transportation, location of the produce, quality of maize and quantity of maize.

Similar factors affect the price at which they sell to consumers, at an average of GH¢ 136.00 while it is bought at an average of GH¢ 122.00 from the farmer. About 74.4 percent of traders stated cost of transportation as a major determinant of the price of the commodity, 19 percent of the traders stated location of the produce while 9.5 percent reported quality of maize as a major factor. Cost of production and transportation and profit margin are major factors affecting selling price as indicated by all farmers.

About 71.4 percent of the MQs reported that the prices at which they buy maize is arrived at through negotiation with farmers while only 28.6 percent report that they buy the maize at the predetermined market price. There is inadequate support from the government to market queens. Only 10 percent of the MQs received support from the government in the form of small loans while 90 percent of them do not. Only 28.6 percent of the MQs are aware of the commodity exchange system while 71.4 percent indicated otherwise.

About 61.5 percent, 30.8 percent and 7.7 percent of MQs reported introduction of commodity exchange (CEX) will have negative, positive and neutral respectively on their business. It was recommended that Government should take action on the following; Capacity building programmes of market queens, provision of credit facilities, improvement in road infrastructure, establishment of price information centres, establishment of legal regime to regulate MQs business, standardisation of weighing at all levels, public private partnership to build storage facilities and formation of strong and vibrant farmer based organisation.



# 1. Introduction

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## Background and Objectives of the Study

Ghana's domestic maize trade is largely dependent on a network of private women traders who dominate the local and regional markets while larger groups of wholesalers engage in spatial arbitrage across regions/districts. These women traders are referred to as "Ohemaa" or 'Market Queens' (MQs). Market queens allegedly control procurement, distribution, pricing of maize and other commodities such as yams and tomatoes. At the local level, wholesalers normally obtain their maize either directly from farmers with whom they have long standing relationships; wives of these farmers or through their agents they call 'potters'.

These local wholesalers then sell to long-distance traders serving urban markets throughout the country. In their hierarchy, there is an overall queen who oversees the day to day affairs of the entire market and traders in the local markets. They sell in bulk or at wholesale to sectional leaders, also known as retail queens, who in turn sell to the various traders in the market.

The two important people that this research is concentrated on are the market queens and the commodity queens. This is because most of the market queens in the urban centres tend to be commodity queens in the local markets, whereas commodity queens in the larger market tend to be market queens in lesser markets.

To ascertain their level of influence when it comes to price realisation, it is important to first identify their roles as 'queens'; their procurement methods; whether or not they are involved in certain uncompetitive practices that affect pricing; and if so to what extent.

Research evidence from the CREW project also suggests that maize farmers in Ghana are happy selling their produce to these market queens on account of the prices they get and the mode of payment. Such reliance on the market queens, on account of their dominant position in the market, raises some concerns especially given the possibility for them to abuse their dominant (near monopoly) position in the market. Further, from the discussions with some of these MQs in CREW project, it was evident that they have some expectations from the Government of Ghana (Ministry of Food and Agriculture) which does not seem to have been met.

It is therefore necessary to do a deeper study in the two regions of Ghana, namely Greater Accra Region and Brong Ahafo Region to assess the structure/network of these MQs; their contribution to women's economic empowerment and employment; their interaction with farmers and role that the government needs to play to strengthen their capacities, efficiency and at the same time provide some safeguards. In view of the above concerns the following **objectives** will be addressed in this study,

- To understand the activities of the private women traders in the maize sector. Contribution of MQs in their respective regions towards women's economic empowerment and employment opportunities.

- To investigate the price setting mechanisms, which include the price received by farmers as they sell their produce to “market queens” as well as the price at which the queens sell the maize in the market?
- To examine the types of support provided by the MQs to the farmers
- To analyse the support(s) the state provides to these MQs
- To understand the perception that market queens have about the effect of the introduction of the commodity exchange in Ghana and how this will affect their maize trade.

## **Structure of the Report**

This study is divided into five chapters. Chapter one, which is the introduction section, gives a background of the study. It discusses the importance of market queens in the context of maize marketing in Ghana. This chapter also presents research objectives of the study. Chapter two presents a review of literature on market economy and liberalisation of maize in Ghana. It discusses the trade associations and the role of social institutions in Ghanaian markets. The role of government in shaping the institutional environment for marketing maize is also presented in this chapter. Chapter three describes the methodology used in the study and chapter four presents the result of the study while chapter five deals with summary, conclusions of the study and policy recommendations.

## 2. Literature Review

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### Introduction

This chapter provides discussions on relevant literature on the general overview of the maize economy in Ghana, followed liberalisation of maize marketing in Ghana. The role of trade associations and social institutions in Ghanaian markets are also reviewed in this chapter. Also, roles of government in shaping the institutional environment for marketing maize are discussed and finally commodity exchange system in Ghana and its importance is also discussed.

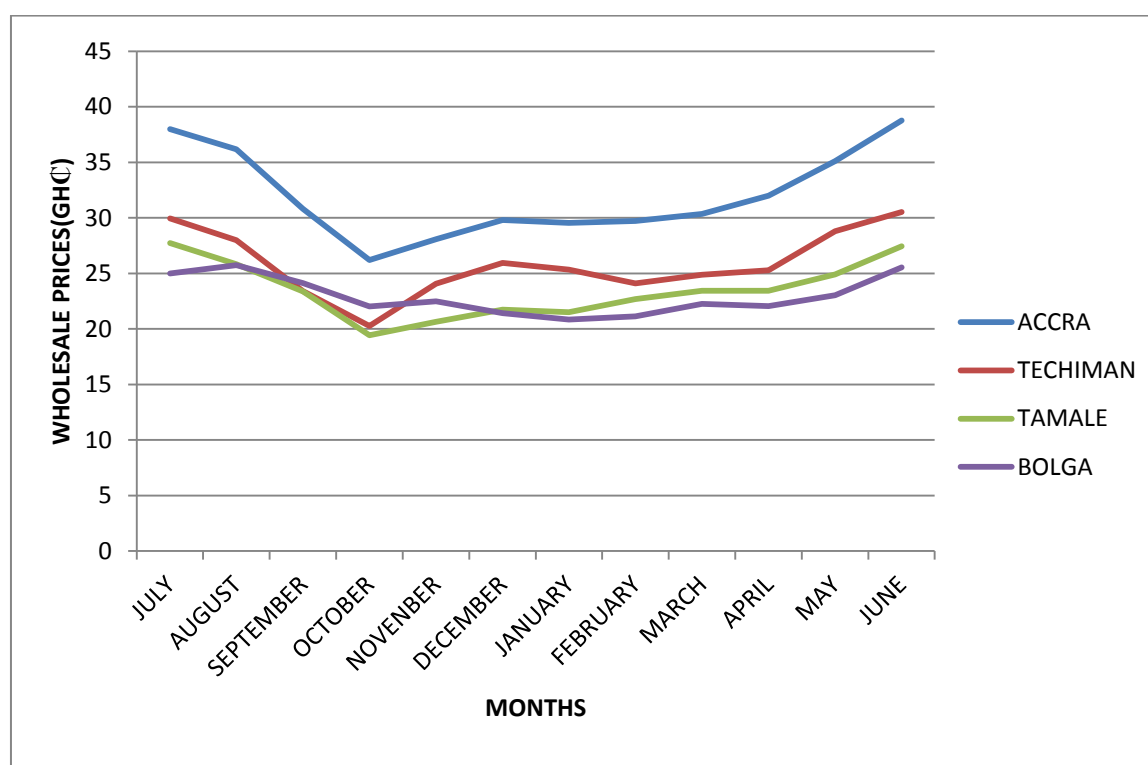
### The Market Economy for Maize in Ghana

Maize is Ghana's most important cereal crop produced by a vast majority of households in all parts of the country (Yeboah, 2012). Although maize production occurs in all of Ghana's ten Regions, data obtained from Ministry of Food and Agriculture (MOFA) shows that from 2000 to 2012, about 82 percent of total maize output come from five regions in three of the five agro-ecological zones. The five principal growing regions are Brong-Ahafo, Northern, Ashanti, Central and Eastern and the three agro-ecological zones are guinea savanna, forest savanna transition and semi-deciduous rainforest with the remaining 18 percent being grown in the other regions of the country (Upper East, Upper West, Volta, Greater Accra and Western Region (Ayeduvor and Kwadzo, 2014).

The maize market in Ghana comprises of the yellow maize mostly used in the poultry industry and the white maize for human consumption, industrial and also in the manufacturing of poultry feed. Imports and exports of white maize are minimal and are thought to have a net neutral effect on the maize market, while limited amount of yellow maize is imported for the poultry feed industry with some cross border trade occurring with the Sahel countries which have not been sufficiently studied and quantified (Gage et al., 2012).

According to Nyanteng and Asuming-Brempong (2003), Ghana is about 100 percent self-sufficient in maize production with only small volumes been imported irregularly. Maize prices are often high due to the high agricultural cost of production, high transaction costs of transporting maize from the many scattered small scale farmers. The prices exhibit considerable monthly fluctuations caused largely by seasonal production and inadequate and poor storage facilities. Between September and October each year maize prices experience a drastic decrease in price with respect to the various markets. Prices are generally low during major harvest periods and increase dramatically in the periods just before the next harvest as shown in the Figure 2.1.

**Figure 2.1: Seasonal Trends in Maize Prices in Ghana**



*Source: Ayeduvor and Kwadzo, 2014*

In the major production regions, maize has minor and major harvesting seasons where prices are low during the major harvesting season. Farmers generally sell their output immediately after harvest to meet their cash needs. During this period the moisture levels are higher and the maize more difficult to store. This leads to many losses, usually from August to October. The minor season harvest occurs in January and February when the harvested maize are drier and easier to store and sold between May and July when prices are very high (Armah and Asante, 2004). The northern regions however have only one growing season from May with the harvest period occurring in October and November (Gage et al., 2012). Given the dryer condition, storage is less of a problem in the area.

Maize marketing in Ghana is traditionally a private sector system which takes place in formal and informal markets. In the rural areas, farmers sell to local assemblers who also sell to wholesalers or commission agents. These wholesalers with reasonable resources often hold large stock of grains in the urban centres and therefore may decide on when and how much of maize to release into the market for retailers who intend sell to consumers. The local assemblers and commission agents often act individually while the wholesalers organise themselves into associations under the leadership of **Market Queens** who do influence the conduct of the market (Langyintuo, 2010).

This is a characteristic of imperfectly competitive market. However, Alderman and Shively (1996) indicated that maize market appears to be sufficiently competitive to prevent traders from enjoying excess margin; prices are generally determined through private negotiation between purchasers and traders (Abdulai, 2000).

**Table 2.1: Official purchases of Maize by GFDC, 1982-1989**

	5,000	1.9
	7,500	5.4
	18,500	3.2
	17,619	4.5
	13,601	2.4
	11,864	2.0
	17,236	2.3
	5,205	0.7

*Source: Sijm (1997)*

## **Liberalisation of Maize Marketing in Ghana**

Since the 1970s the Task Force, the Food Distribution Corporation and Grains Marketing Board have been merged under the Ghana Food Distribution Corporation (GFDC). In the 1970-1980 decade the GFDC functioned as parastatal organisation in marketing and distribution, concentrating on maize and rice without involving in actual production until the Structural Adjustment Programme (SAP) of 1983 that marked the beginning of the end of GFDC as marketing agent in 1990 (Fusheini, 2003).

Available data indicate that the GFDC had insignificant influence on the activities of smallholder producers and marketers. They had the freedom to sell to the GFDC or not and indeed resort to this only in times of difficulty. The GFDC therefore as seen in the quantities it actually purchased (Table 2.1) was an insignificant player in the cereal market. It bought less than eight percent of the total domestic production of maize and rice and was not even punctual at this (Seini, 2002), thus failing the price support scheme it was intended to promote.

The insignificant level of purchases by the GFDC conveys the failure of the guaranteed minimum price scheme and therefore any impact of the GFDC on smallholder producers. Even though other actors such as the Grains Warehousing Company and public sector poultry and feed mill establishments and market women retailers were under the GFDC, they unofficially dominated the cereal market. The market women in particular operated in networks private wholesaling and retailing of maize and the networks are built and maintained on trust and ethnic ties (Abdulai, 2000).

The large wholesalers among these networks have spatial arrangement that allow them to obtain supplies directly from farmers or through resident assemblers, who then sell

these to long distance traders in urban markets. In the case of maize, which is traded in unprocessed form, traders often perform exchange and facilitating functions which is not regulated by GFDC (Aldeman and Shively, 1995; Abdulai, 2000).



## **Role of Government in Shaping the Institutional Environment for Marketing Maize**

It should be stated from the onset that marketing of agricultural produce in Ghana are not regulated except for cocoa. The buyers of cocoa are licensed by the COCOBOD and all purchases are delivered to COCOBOD at approved prices at specific locations. Over the period 1963 to 1970, various marketing institutions have existed under different titles but broadly with the same objectives, that is to promote food production through pricing and marketing policies that favour consumers; and to ensure effective distribution of food throughout the country. In 1971, the existing marketing organisation, namely, the Ghana Food Marketing Corporation, 1966 (L.I. 502) under Legislation Instrument 714 became the Ghana Food Distribution Corporation (GFDC) with similar objectives.

The GFDC concentrated its effort on maize and rice marketing. It has become the government's major food agency, purchasing maize and rice to support a minimum guarantee price and then selling it. From its inception, the GFDC relied on a commodity pricing committee established by the government to fix prices. However, the failure of the GFDC to purchase sufficient quantities of the maize offered by farmers, coupled with its untimely purchases, made the price support programme ineffective.

In most instances, the programme actually acted as a disincentive to farmers. The cost of production approach used to determine the guarantee prices assumed that all farmers applied the recommended production practices. The price policy proved in inappropriate as farm surveys indicated that farmers had different production costs and yields (Kwadzo, 2010). As part of Ghana's trade liberalisation programme, the guarantee minimum price for maize and rice was abolished in 1990 and the market forces have determined prices until the establishment of National Food Buffer Stock Company (NAFCO).

In March 2010, the Government of Ghana set up the National Food Buffer Stock Company (NAFCO), a completely state-owned-enterprise that is intended to buy, preserve, store, sell, and distribute excess grains (including maize) in warehouses across the country. The creation of NAFCO is part of the strategy to reduce post-harvest losses, ensure price and supply stability and establish emergency grain reserves. Specifically, NAFCO mandate consists in: guaranteeing an assured income to farmers by providing a minimum guaranteed price and ready market for farmers in order to reduce post-harvest losses resulting from spoilage due to poor storage; purchasing, selling, preserving and distributing food stuffs in times of crisis; employing a buffer stock mechanism to ensure stability/balance in demand and supply; expanding the market share/demand for food grown in Ghana by selling to state institutions such as the military, schools, hospitals and prisons.

Given the difficulty of NAFCO to reach farmers in remote areas, 73 Licensed Buying Companies (LBCs) are contracted by NAFCO to purchase maize and rice from farmers in the various villages at a minimum purchasing price (i.e. floor price) irrespective of location determined by NAFCO in consultation with the post-harvest committee within MOFA (IFPRI, 2011). However, current findings from the CREW survey revealed that

total purchases of maize by NAFCO ranges between two-five percent of the total maize supplied in the market.

Thus, there are no formalised domestic food market institutions in Ghana. There are, however, trade associations in respective markets covering specific commodities. It is generally alleged that these associations practice opportunistic behaviour that makes the markets inefficient. They are able to control the flow of commodities into their respective markets and erect barriers for others.

## **Commodity Exchange System in Ghana**

Warehouse Receipts Systems (WRS) are part of a framework of 'modern market institutions', that countries adopt in different combinations and permutations according to circumstances, to develop their agriculture and render markets more efficient and effective in delivering benefits to consumers and producers.

For the past two decades, several private initiative to establish commodity exchange and related market institutions were launched in Ghana. One of these involved a partnership, led by the then Chairman of the Grain Marketing Association of Ghana (GMAG), which incorporated the Accra Commodity Exchange (ACX). The promoters of ACX were unable to actively engage other stakeholders in promoting the exchange which failed to take off and did not record in any formal trade in commodities. Another promoter launched what was later to be called the West African Commodity Exchange (WACE) with its headquarters in Accra. This initiative reportedly involved collaboration with international players such as the London International Financial Futures Exchange (LIFFE), the Cocoa Association of London and the African Development Bank (AfDB). It was further reported in July 2008 that the promoters were seeking investment of about US\$500 million to launch the WACE.

The third private initiative by the Commodity Clearing House (CCH) adopted an approach which differed fundamentally from the other two. Though the ultimate vision was the development of a viable commodity exchange, promoters of CCH adopted an evolutionary approach focusing initially on fostering trade warehouse warrants. Twinned to this track was a programme to engage other stakeholders in developing a supportive regulatory framework as well as warehouse receipt system. The CCH was registered in 1996 as company to deal in financial securities, market information and trade services relating to commodities.

In Ghana, Techno-Serve has applied the use of inventory credit for grain marketing, particularly for maize since 1989. This system is now more widely used in Sahel Region of Africa. The amount of credit provided by the local banks is pegged to a proportion of the current market value of the stored grain, usually between 70 and 80 percent of the prevailing market price. This limits the lender's risk should the price not rise as anticipated. The inventory credit programme is profitable only when the increase in the value of the stored goods exceeds the costs of storage and the borrowed funds (i.e. interest payments, bank fees, etc.).

Under most NGO-sponsored schemes, the warehouses, which have very small storage capacity (some as low as 20 tonnes) are located in villages and managed by the farmer

groups. This is principally to ensure easy access by smallholder farmers and also ensure that storage costs are low. Some donor funded programmes have relatively larger warehouses, some with storage capacity up to about 1,000 tonnes located close to villages.

Implementation of the TechnoServe project was concentrated in Ghana's "maize belt" and the depositors were mainly individual smallholder farmers, who obtained inventory credit from the Agricultural Development Bank (ADB). The credit was secured against warehouse receipts as well as a guarantee by TechnoServe which initially represented 100 percent of the loan granted. In addition, TechnoServe provided training for the depositors and contributed financially to the construction of warehouses. They also provide intensive monitoring of the stocks in the warehouse, tracking price movements and offering advice to participating farmers on the timing stock sales. The inventory credit system promoted by TechnoServe for grains was not sustainable. This is principally because scale diseconomies made it difficult to cover the high cost of intensive supervision by TechnoServe. Furthermore, because the warehouse receipts issued are not transferable they are of limited use in facilitating impersonal trade transactions as occurs in exchange trading.

In 2009, stakeholders in the grain sector—including grain producers, traders and processors – formed the Ghana Grains Council (GGC) with the goal of driving improvements in the grain value chains in the country. One of the priority objectives of the GGC is promote a WRS for the grain sector. The GGC is being funded by the United States Agency for International Development (USAID) under two related projects: the Agribusiness and Trade Promotion (ATP), which is regional programme, and the Agriculture Development and Value Chain Enhancement (ADVANCE) Project. The ATP is a three-year regional initiative intended to enhance value addition in the agricultural sector and increase intra-regional trade through developing and/or strengthening institutional infrastructure and links that foster stable commercial relations as well as reduce physical and policy-related barriers to agriculture.

The GCX will start with spot and futures trading of agricultural commodities, including maize, soybeans, paddy rice, palm oil and groundnuts. Once these and the related deliveries of actual crops are settled, the GCX aims to introduce other key agricultural and non-agricultural commodities and to position itself as a future regional trading platform.

It is anticipated that successful implementation of the WRS pilot will contribute significantly to laying the foundations for secure inventory-backed finance as well as exchange trading. Many of the sector representatives on the members of the Steering Committee of the GGC have a long history of involvement in previous WRS initiatives in the country and should therefore be able to embed relevant lessons in developing the plans and strategies of the Council.

### 3. Methodology

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#### Sources of Data

Data employed for this study was gathered from primary sources. Structured questionnaires and in-depth interviews were used to obtain data from maize market queens and maize farmers. Focus Group Discussions (FGDs) were organised for both farmers and the market queens in their respective regions (Brong Ahafo and Greater Accra).

#### Sampling Procedure

The sampling procedure adopted for this study is the multi- stage sampling technique. In the first stage, two regions where maize is widely produced and consumed were selected. In the second stage, 10 market queens from each of the regions were selected based on the intensity of maize production and consumption. The third stage was random selection of 30 maize farmers in Techiman in Brong Ahafo Region and 20 market queens from both Techiman and Greater Accra.

#### Analytical Techniques

The analytical techniques employed in this study are mostly descriptive statistics. Descriptive statistics such as frequency distribution table, percentages, means and standard deviation, were applied to the analysis of socioeconomic and demographic characteristics of respondents and their level of market participation of the market women and farmers.

#### Study Area

As stated earlier the study was conducted in two regions in Ghana namely Greater Accra and Brong Ahafo Region due to productions and consumption of maize in these regions. Greater Accra region is the smallest of the 10 administrative regions in terms of area, occupying a total land surface of 3,245 square kilometers or 1.4 per cent of the total land area of Ghana. The region is located within the coastal belt of Ghana, and shares boundaries with the Eastern Region to the North, Central Region to the West and Volta Region to the East and to the south lies the Gulf of Guinea. The region is relatively dry since it falls within the dry coastal equatorial climatic zone with temperatures ranging between 20° and 30° Celsius and annual rainfall ranging from 635 mm along the coast to 1,140mm in the northern parts.

There are two rainfall peaks notably between April and July which is associated with the major cropping season in the region and in September and November for minor. The region remains predominantly urban (87.7 percent) which is about twice the national average of 43.4 percent. Accra, the capital is the most urbanised city in Ghana. Primary agricultural production is the smallest economic sector of the region, with the main activities being food crop production marine fishing. Accra has about 40 designated market centres.

**Figure 3.1: Map of Ghana Showing the two Market Locations**



Source: Nations Online Project (<http://www.nationsonline.org/>).

Brong Ahafo Region is a major maize producing region in Ghana producing about 30 percent of the total maize produced in the country according to production figures obtained from the Ministry of Food and Agriculture (Ayeduvor and Kwadzo, 2014). Techiman was selected based on production of the crop and also major market for maize in the region.

## 4. Results and Discussions

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### Socio-demographic Characteristics of Respondents

The market queens and farmers who were included in this survey have different background; they are heterogeneous in their social and economic pursuit. Table 4.1 gives the background information of the market queens and farmers on their age and gender.

**Table 4.1 Age Distribution of Market Queens and Farmers**

	Age Group	Market Queens		Farmers	
		Frequency	%	Frequency	%
Age	20-30	0	0	2	6.7
	31-40	0	0	13	40
	41-50	6	28.6	8	26.6
	51-59	8	38.1	3	10
	≥60	7	33.3	5	16.7
	<b>Total</b>	<b>21</b>	<b>100</b>	<b>30</b>	<b>100</b>

*Source: Authors computation from survey data*

The results also show that all the market queens are between 41 to above 60 years. The reasons why the youths are not interested in maize trade business may be due to lack of capital. About 71.4 percent of the market queens are 50 years and above in the study area. This has implication of the age category of women involved in the maize trade future survival of the business. Since over 90 percent of the total maize produced in Ghana is procured by these network of market queens, efforts must be put in place to encourage the youth to take up the maize trade business in order to prevent the potential collapse of the maize trade in few decades to come. Contrary to the market queens, the results in Table 4.1 shows dispersed age distribution with regards to farmers in the study area. About 40 percent of the farmers are between 31 to 40 years while only 16.7 percent of farmers are above 60years.

The results also show that 52.4 percent maize traders are males while 47.6 percent are females. This finding is contrary to perception that most of the traders in the maize trade business are women. However, the urban markets are dominated by women traders and there are some few men also in the maize trade business in the various local markets. In Techiman market in particular, most of the wholesalers are men while the women are engaged in retailing the same commodity. On the other hand about 90 percent of farmers are males while only 10 percent are females. The results show the dominance of men in production of maize compared to women in the study area. This may be because of the drudgery associated with the production aspect of maize and also the fact that most cultivable lands are owned by men.



**Table 4.2: Gender Distribution of Market Queens and Farmers**

	<b>Gender</b>	<b>Frequency</b>	<b>%</b>	<b>Frequency</b>	<b>%</b>
	Male	11	52.4	27	90
	Female	10	47.6	3	10
	<b>Total</b>	<b>21</b>	<b>100</b>	<b>30</b>	<b>100</b>

*Source: Authors computation from survey data*

As shown in the Table 4.3, 17 out of 21 market queens had formal education while only 18 out of 30 farmers had formal education. With regards to the market queens 9.5 percent had primary education, 38.1 percent had JSS/Middle School education, and 33.3 percent had SSS/Tech/Vocational school. With respect to the farmers 26.7 percent of them had primary education, 20 percent had JSS while about 40 percent had no formal education. They believe that farming is for the least educated or school dropouts could be the reason why most of them had no formal education.

**Table 4.3: Educational Level of Respondents**

<b>Educational level</b>	<b>Market Queens</b>		<b>Farmers</b>	
	<b>Frequency</b>	<b>%</b>	<b>Frequency</b>	<b>%</b>
Primary	2	9.5	8	26.7
JHS/Middle School	8	38.1	6	20
SHS/Tech/Vocational	7	33.3	4	13.3
No formal education	4	19.0	12	40
<b>Total</b>	<b>21</b>	<b>100</b>	<b>30</b>	<b>100</b>

*Source: Authors computation from survey data*

## History and Emergence and Activities of Market Queens in Ghana

Trade associations developed out of the need for political power when British colonists took away the right from chiefs to oversee market activity during colonial rule. The existence of market women association in Ghana predated independence of the country. This association was formally called the Federation of Market Traders (FEMATA) which was organised during early post-independence. Their vibrancy came to a halt after the overthrow of the Ghana's first president even though the individual traders in the markets still conducted several functions in the market. These trade associations continued to thrive until the 1980's when associations were placed under scrutiny for

false pricing. The false pricing by the trade association means that they increase price of the commodity in the market just to make supernormal profits. This can also be referred to as over pricing of commodity. They were alleged to also sometimes create artificial shortage of commodities in the markets. The government of the day then became heavily involved in market activity in attempt to limit price manipulation. However, in order to limit corrupt behavior, these same actors eased off market regulation in the 1990s in an effort to pursue freer markets.

The selection of the market queen is done by nomination of a female item or commodity leader (e.g maize leader) which will then be approved by a popular acclamation by other traders who are members of the association. The market queen's position is lifelong one and she can only be replaced in case of death or inability to perform the assigned functions as a leader due to ill health.

Before a new market queen is selected, she needs to be groomed under an existing old queen for several years in order to have all the qualities that will be accepted by all the members. The market queen position is usually not paid but she sometimes receive gift from the members. The market is composed of several commodities; as such each commodity has its specialised association which sometimes has male secretary who is in charge of documenting the quantity of goods that each trader brings into the market and serves as liaison between the association and local authorities. All specialised commodity association has its leader but all these leaders are under the overall market queen.

The market associations are composed of various stakeholders including retailers, resident wholesalers and itinerant traders selling the same commodities. These associations often develop into homogeneous groups that are characterised by ethnicity and/or gender.

Most women are involved in maize trade because of Ghanaian traditions and other religious implications. For instance, it is believed that Muslim religion does not allow most women to trade or work after they have married unlike the Christian religion. Hence in Muslim dominated communities especially in Northern part of Ghana, men are more into maize trading than women while in the southern sector of Ghana the reverse is the case. The contribution of these women associations to socio-economic development of the country cannot be underestimated hence in the preceding section, the report dealt into their organisational structure and other activities undertaken by these women and their contributions to the greater good of the Ghanaian society.

## **Organisational Structure of Market Queens in Ghana**

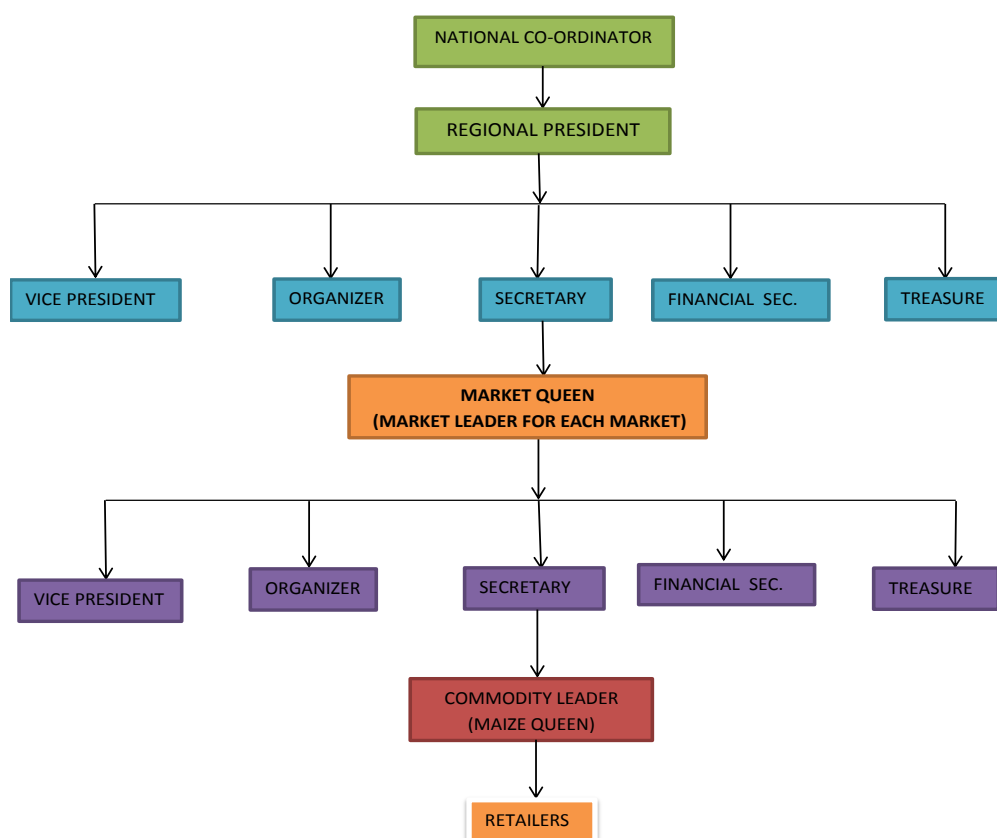
A market is an exchange mechanism that brings sellers and buyers of any commodity or service. Several commodities are traded in market places in Ghana some of which are maize, rice, tomato, pepper, onions, yam etc. Each of these commodities has a group of traders or market women that buys and sells them to consumers. Figure 4.1 shows the organisational structure of market queens in Ghana. These structures composed of various market actors ranging from retailers who sell directly to the consumers to the 'National Co-ordinator' of market traders association. These structures are briefly discussed below.

**Market Level:** Retailers mostly sell directly to consumers and they constitute a large number of traders in the market. The market associations are formed around these commodities hence there is maize traders associations, rice traders association, tomato traders associations etc.

Maize traders associations comprises of individual maize traders who are mostly women. The association is managed by five member executives who oversee daily activities of the association in the market. The executive members are president, vice-president, organiser, treasurer and the secretary. The president is often referred to as **Maize Leader** or **Maize Market Queen**. At the market level, several commodity associations in the market will also select five executive members the president, vice-president, organiser, treasure and the secretary. The president of all the commodity leaders is the overall market queen.

**Regional level:** The regional executives of the market women association are composed of the president, vice president, secretary, organiser, treasure and any additional member with good standing. These executives are nominated by individual markets within the regions which will be accepted by members through popular acclamation.

**Figure 4.1: Organisational Structure of Market Queens in Ghana**



*Source: Author's Computation*

**National level:** The regional executives constitute members of national executives. One of the regional presidents will be nominated to the position of National co-ordinator. According to results, these positions are not registered with the government and they do not have anything of government regulation. The national coordinator will then be presented to the members at a national meeting; she is also accepted through popular acclamation. The national association of market women meets twice in a year, even though the day for the meeting is not specific, the national coordinator calls for this meeting in case of emergency while at regional level the association meets every second Thursday of every month in Accra. It must be noted that this association does not follow any regulations by the government. All their activities are conventional and all coordinated by the market queens.

It was reported that government recognises the association of market women and assist them in organising workshop and seminars on book keeping, public relations and also give them loans through the MASLOC at the interest rates of two percent per month. The amount given to some of the members ranges between GH5, 000.00-GH50, 000.00.

## Contribution of Market Queens to Farmers in Ghana

Maize traders in Ghana performed several other functions to farmers that help in their production and marketing of the commodity. These activities are ranked by the respondents as shown in the Table 4.4 below. These activities are briefly discussed below.

**Table 4.4: Contributions of Market Queens to farmers**

Contribution of Market Queens to Farmers	Mean	Rank
Financial assistance to farmers	1.1429	I
Storage facilities	2.8571	II
Regular supply of inputs	3.2381	III
Transport facilities	3.3810	IV
Regular supply of raw materials	4.3500	V

*Source: Authors computation from survey data*

## Storage Facilities

Market queens provide storage facilities in several forms in the study area. This function is mostly performed by traders in Techiman which is located in maize growing area. They provide storage facilities in form of silos or warehouses in various communities where maize is produce. Most traders in Techiman according to the survey results either store maize in private warehouses or in their own storage facilities. Some farmers experience smaller storage loses because they harvest and thresh at the proper moisture level and only store grain for a limited period. Most maize traders in Accra

store maize in sacks or sheds mostly located at the market places because the amount they purchase is small and can be quickly sold. They incur minimal storage costs and risks. Few maize traders used storage chemicals for maize. This activity is ranked by the respondents as the second most important activities performed by the traders in the study area.

### ***Transportation Facilities***

Another important activity performed by traders is the transportation of farm produce. Most transportation facilities are poorly developed especially road network linking farming communities and market centres. As a result, the dominant means of transportation for taking agricultural produce to local markets and bringing farm inputs to the farm are head load, tricycle, trucks or through other public transport. According to the market women, sometimes due high cost transportation they prefer to take a one truck which goes with one person to buy the produce on their behalf. This happens when there is a shortage of maize in Ghana and they have to travel to a neighbouring country such Togo, Ivory Coast and Burkina Faso. In this way cost of transportation is minimised.

### ***Financial Assistance to Farmers***

One of the most important activities performed by the maize traders is providing financial services to the farmers. According to result presented in Table 4.3 above, it was ranked the first. Traders sometimes pre-finance some of the activities undertaken by the farmers. The traders give the farmers money with the agreement that they will buy the produce from them after harvest. These agreements compelled the farmers to sell to these maize traders despite the low prices offered them by the traders.

In most areas, farmers have serious credit problems for their household requirements. Because of this, most farmers sell grain immediately after harvest due to urgent cash requirements to purchase manufactured consumer goods and pay for other household needs. In such a situation, farmers sell their grains when grain prices are cheap and purchase grains for own consumption during the off season at higher prices, in spite of the fact that most farmers are very much aware of speculation.

Due to small and scattered nature of famers in Ghana, they find it difficult getting financial assistance from formal financial institutions because to purported risk associated with agriculture in Ghana and also financial assistance from microfinance companies often come with high interest rates. Hence the interventions of these traders are timely as most farmers have no choice than to go for such assistance to help them buy input for their farming activities.

### ***Regular Supply of Input to Producers***

Maize traders in the study also provide inputs to farmers especially those they have developed long standing relationship with. The respondents reported that they supply inputs such as fertiliser, seeds, weedicides, cutlass and other farm implements to famers with the agreement that they will buy the maize from them. This function is however ranked as the 3<sup>rd</sup> most important activity by the traders as shown in Table 4.3.

### ***Regular Supply of Raw Material for Feed Processors***

Traders also buy maize from various production centres and assembled at a point and then transport to various feed producers in the country. This activity was however ranked at the least importance according to the respondents. Despite the fact that this function does not directly affect farmers, it helps absorb excess farm produce that would lead to postharvest losses.

### **Maize Price Determination**

After the liberalisation of maize market in 1990, an open market price system is in operation. Which means that, price of maize depends mainly on demand and supply. However, prices are also influenced by price information and crop flows within and outside the area. The impact of maize prices on consumers and producers welfare cannot be underestimated. Price variability has two kinds of problems. Seasonal fluctuations in producer price levels lead to a general income problem while year-to-year variations around the moving price level leads to the problem of uncertainty. When producer price levels either rise or fall in absolute terms, this leads to negative consequences for either consumers or farmers. In the case of price uncertainty, where a commodity may rise one year and fall the next, farmers are required to make planning decisions without knowing the following years' price, which can lead to the inefficient distribution of resources.

### ***Factors that Determine Price of Maize in the Market***

Price of maize in the markets is determined by several factors. The most important factor that determines price of maize according to the market queens is the cost of transportation. The results showed that 74.4 percent of the respondents stated this as a major determinant of price of the commodity. The total costs of transporting maize depend on the quantity of maize transported by the traders, since transport operators charged per unit bag of maize. Also about 9 percent of the traders stated location of the product while only 9.5 percent stated the quality of maize as the determinant of price. Other factors reported by the respondents (MQs) are price of maize at farm gate, size of the measuring bag and profit margins. With regard of farm gate price which is the price at which the farmer sells maize to traders at his home or farm, normally fluctuates depending on the period of harvest. Most famers sell off their produce after harvest due to lack of storage facilities.

The survey results also revealed that the main factors that affect the price at which farmers sell their maize to the traders are cost of production, cost of transportation from farm to market centres and profit margin. The farm gate price of maize in the study area ranges between GH70-150/100kg while the price of maize at market centres ranges between GH90-190/100kg. The average farm gate price of maize is GH122/100kg while that of market centre is GH136/100Kg. The average distance between selling point and the houses of the producer is 21.4km, however, these distances range from 2 km to 25 km with standard deviation of 8.3. Considering these distances, one expects a significant difference between farm gate and market centre prices because of transportation cost. According to the traders even though prices do not vary much between farm gate and market centre the mode of measurement is not the same (the weight of the farm gate is high than the market centre) due lack of



standard in measuring the commodity especially at farm gates. From the findings it can be inferred that the minimum guarantee price policy of NAFCO might not be working as expected or unable to bring its services to the door step of the farmers. This is because most of the farmers still sell their products to these market queens on account of prices received for the products.

### ***Processes of Price Determination***

According to survey results, about 71.4 percent of the traders reported that the prices at which they buy maize is arrived at through negotiation with farmers while only 28.6 percent reported that they buy maize at the predetermined market price. About 81 percent of the traders buy from individual farmers while only 19 percent buy from an assembled point. Given the fact that almost all the traders belong to one association or the other, the same cannot be said about the farmers and this puts farmers at a disadvantage in terms of negotiation for the price of their produce.

The results indicated about 93.1 percent of farmers reported they sell their produce to market queens while only 6.9 percent sell to any other buyers. From the perspective of the farmers, the findings suggested that 63.3 percent of them sell their produce at a predetermined price offered by the market queens while 36.7 percent of them sell at a negotiated price. The report of the farmers is contradictory to the suggestion by the market queens that most of them buy the produce at negotiated price with the farmers. This inconsistency in the report may suggest that even though prices are negotiated from the perspective of the traders, the outcome of such negotiations are not satisfactory. This is also confirmed by the fact that about 70 percent of farmers do not get the price they quote for their produce. This finding is consistent with the results reported in Table 4.6, which shows that buyers dictating price of maize is the second most important challenge facing maize farmers in the study area. The remaining 30 percent of farmers however indicated they do get the price they quote for their produce.

Agricultural commodity price transmission and dissemination are important pillars for efficient marketing system. The result revealed that 38.1 percent of traders obtain price information via private entities (ESOKO), 52.4 percent from the media while 9.5 percent get price information from friends and family members. Also farmers get information from the government (3.3 percent), private entities (43.3 percent), NGO's (3.3 percent), media (16.7 percent), and family and friends (33 percent).

The efforts of ESOKO (Ghanaian technology firm), a private enterprise in the study area are yielding successful results in disseminating agricultural price information. Farmers and traders are registered and price information is sent through their mobile phones. This result is consistent with the findings of Egyir et al. (2011) who also investigated the gains from ICT based market information services in the Ghanaian food commodity markets using the Ravallion-Timmer model in 11 selected markets. The study reveals that mobile phone has been the single most important ICT tool facilitating the speedy transmission of market information. Current market information and efficient markets will help farmers to make educated, cost-effective decisions when selling their crops, to farm more efficiently and to get better value for their crops leading to increased food production and better livelihoods for farmers without increasing consumer prices.

Some farmers also get current price information after they arrive at market places. They also receive information about past prices in the local market from their neighbors who visited those markets recently.

## **Role of Market Women in the Socio-Economic Development of Ghana**

It was identified during the focus group discussions (FGD) that market women play numerous roles in the development of the local economy. These roles are briefly discussed below.

### ***Employment Creation***

The market queens in Ghana generate both direct and indirect employment. The first groups of people mentioned were drivers who earned their livelihoods by transporting the maize and other commodities from the farm gates to the market centres. Additionally, security men, 'truck pushers' and head porters all gained employment due to the activities of the traders in the markets. Above all retailers and other traders are all employed through the activities of these market queens. Measures should be put in place to support the activities of these traders who travel throughout the country in order to engage not only themselves in employable jobs but also offer opportunities to overwhelming unemployed youths in the country.

### ***Provision of Income for Households***

Almost all the traders reported that the income generated from the business is used to educate their children and take care of the family. Though, to majority of the traders, the profits earned from their trade were not substantial to guarantee a better standard of living, they were able to augment their households' total income from the profits made.

Women represent more than half of the total population of the country; utilising them in productive ways is a must for accelerating sustainable development of the country. It is obligatory on the part of the policy makers to meaningfully involve and promote them in agriculture-related income-generation activities.

### ***Food Security for the Urban Economy***

The traders' role in ensuring food security and sufficiency in the urban areas is impeccable. This claim is underpinned by three main facts. Firstly, the transportation of maize and other foodstuffs from the remote areas to the urban areas had reduced post-harvest losses and motivated farmers to continue production due to the ready market made available by the traders. Secondly, the financial assistance given to farmers to invest in their farming activities had enabled the hitherto subsistence farmers to commercialise their activities. Lastly, the traders, were able to preserve the foodstuffs in times of glut for future use during the lean season especially Techiman maize traders. All these efforts contributed towards the attainment of food sufficiency and security in the country.

### ***Source of Revenue to the Country***

The taxes and rents paid by the traders were major sources of internally generated revenue to Accra Metropolitan Assembly or any other district assembly within which markets are located. The taxes and rents were paid to the assemblies through the

Market Management. The taxes were in the form of market tolls commonly referred to as “tickets” whilst the rents were paid to the Assembly for using the stores and sheds.

### ***Development of Entrepreneurial Skills***

Vibrant private sector is the engine of growth for every developing economy. In this respect, the maize traders had trained and continue to train people to acquire the necessary skills in maize trading. About 60 per cent of the traders inherited the business from their parents and superiors after having served them and acquired the necessary experiences. Almost all the traders interviewed had “apprentices” who supported them in their daily activities. These apprentices were either their wards or workers who were paid wages for the work they performed. An interview with the traders revealed that the apprentices were expected to start their own enterprises in the future after acquiring the necessary skills.

### **Contribution of Market Queens towards Women’s Economic Empowerment**

Empowering women to participate fully in economic life across all sectors is essential to build stronger economies, achieve internationally agreed goals for development and sustainability, and improve the quality of life for women, men, families and communities. Women play a critical and transformative role in agricultural growth in developing countries, but they face persistent obstacles and economic constraints limiting further inclusion in agriculture related activities. According to USAID, there are five important domains of empowerment indicators. These are production, resources, income, leadership and time.

This survey accesses the economic empowerment of women using the following indicators;

- Group membership
- Speaking in public or leadership
- Control over use of income
- Purchase, sale or transfer of asset and
- Ownership of asset

According to the survey results, all maize traders belongs to an association and this gives them the opportunity to become leaders who play various roles within the group and their respective communities and regions. The maize leaders in some districts are on district assembly committees in charge of food security and this also exposes them to governance and policy decision making processes.

It was also observed from the focus group discussion that these women earn income from the maize trade business. Even though they suggested it was insufficient, they admitted that it helps supplement their household income. This income is used to educate their children without reliance on their husband. The head of the association is also one of the traders who engage in her private business in the market hence she earns some income through her business.

Even though the results show that market queens contribute to economic empowerment of women in Ghana, these progress made cannot be attributed to the

policy reform of liberalisation of the maize trade sector. This is because the activities of the market queens predated the independence of Ghana and they exist under several political reforms and not regulated by national laws or guidelines.

## Challenges of Market Queens in Ghana

The major constraints faced by the market queens are inadequate access to credit, cost of transportation, lack of storage facilities, and ready market for the produce among others. Table 4.5 shows the ranking of these problems in order of their importance. The most pressing problems are briefly discussed below.

### Access to Credit

Access to credit was identified by all maize traders as the most critical constraint facing their businesses. The difficulty in accessing credit is not confined to only trader but also farmers. It was revealed that traders get access to finance from the commercial banks, micro finance institutions, NGOs, self-finance and family and friends. About 71.4 percent of the traders are self-financed due to cost of credit which ranges between 30 and 35 percent for commercial banks according to Bank of Ghana.

Meanwhile, maize traders are offered the highest interest rates with short repayment periods, which make them very unattractive. These problems are compounded by lengthy bureaucracies in accessing credit from banks limiting these traders from getting financial assistance from them. The respondents however proposed low interest rates as a solution to inadequate access to credit. Interest rate charged on loans should be reduced to a relatively low rate to enable traders to take these credit facilities from these banks and other sources.

**Table 4.5: Challenges of Market Queens**

Challenges of Market Queens	N	Mean	Rank
Access to credit	20	2.45	1
Cost of transportation	20	3.45	2
Non-payment of loans to farmers	20	4.75	3
Lack of storage facilities	20	5.05	4
Lack of drying facilities	20	6.05	5
Access to market	20	7.30	6
Unpredictable price of maize during the year	20	7.30	7
Low price of maize	20	8.30	8
Unpredictable government action especially import of maize	20	9.10	9
Access to information on maize prices	20	9.20	10
Theft	20	9.84	11

*Source: Authors computation from survey data*

### ***Cost of Transportation***

The traders ranked high cost of transportation as the second most important challenge facing them. Cost of transportation is major determinant of the price of maize in the market, hence the higher the cost of transporting maize from the producing areas to consuming centres the higher the price consumers may pay for it. In Ghana, the cost of transport depends mostly on the price of fuel or petrol, which is highly unstable. This makes it difficult for these traders to plan for a long term.

### ***Non-payment of Loans by Farmers***

The results revealed that the third most important challenge facing the traders is non-payment of loans by farmers. Traders give assistance to farmers in form of loans on condition that their harvested farm produce will be sold to them. This agreements are mostly based on trust without it been documented by any of the partners. The farmers sometimes renege on their promise to sell the maize to the traders or even pay back the amount given to them. This hinders the work of the traders and makes them indebted to microfinance companies from which they have obtained loans.

### ***Lack of Storage Facilities***

Lack of storage facilities was identified as the fourth most important challenge maize traders face in the study area. The results revealed that most of the traders store their maize in sheds which is mostly located at the various market centres. This predisposes the products to unfavourable weather conditions and theft.

### ***Lack of Drying Facilities***

Lack of drying facilities was also identified as a major challenge affecting maize traders in the country. Price of maize is usually low immediately after the harvest, when the moisture content is high. This leads to spoilage of the commodity after they have been purchased by the traders. The drying facility is needed during the raining season to dry the maize to avoid post-harvest losses. According to the traders the existence of drying facilities will enable them to buy large quantities of maize during harvesting season.

## **Constraints of Maize Farmers in Ghana**

All the farmers interviewed were asked to rank the constraints facing the marketing of maize; the results are presented in Table 4.6. These constraints are briefly discussed below.

**Table 4.6: Constraints of Farmers**

<b>Constraints of Farmers</b>	<b>N</b>	<b>Mean</b>	<b>Rank</b>
Unfavourable market price of maize	30	1.17	1
Buyer dictates prices	30	2.60	2
Market uncertainties	30	4.20	3
Poor storage facilities	30	5.93	4
Lack of government policy to promote marketing	30	6.40	5
No standards to follow in preparing maize for sale	30	7.97	6
No drying facility	30	8.33	7

<b>Constraints of Farmers</b>	<b>N</b>	<b>Mean</b>	<b>Rank</b>
Inadequate market infrastructure	30	8.60	8
Poor road network to marketing centres	30	9.10	9
No information on quality requirement of buyers	30	9.77	10
Inadequate access to means of transport	30	9.80	11
No buyer information	30	10.17	12
Long distance to market centres	30	10.47	13
No price information	30	10.73	14

*Source: Authors computation from survey data*

The results revealed that, unfavourable market price of maize was ranked the first most important problem with regard to marketing of maize. The farmers complained of low price of their produce which fluctuates every season. Due to lack of storage facilities, farmers are compelled to sell their produce immediately after harvest. This result is consistent with the findings of Ayeduvor and Kwadzo (2014) which showed that prices of maize in Ghana generally decline rapidly in the first four months after the new crop are harvested which starts in July for the southern sector of the Ghana.

According to their findings, Accra records 17.4 percent and 17.5 percent decline in maize price in September and October respectively, 19.6 percent and 15.5 percent for Techiman, 10.5 percent and 20.23 percent for Tamale and 6.7 percent and 9.5 percent for Bolgatanga and similar drastic decrease in other major markets. In general, lower food prices benefit consumers and stimulate economic growth but can lower producers (farmers) income and reduce the employment of landless workers, if such low prices do not reflect lower cost of production and or improved productivity.

The farmers also reported buyers dictate price of maize as the second most important problem facing them. Due to bad road network and high cost of transportation, farmers are unable to transport their produce to market centres as such they are compelled to sell to any available buyer in times of need. This results in buyers dictating the price of the produce. Under such circumstances farmers sell at lower prices than will have gotten at market prices.

The results revealed that market uncertainties were also identified as major problem for these farmers in the area. Farmers are not certain of the availability of buyers or even if there is market for the quantity of maize they want to sell at that particular time. This leads to other speculative factors that drive maize prices in the market more than basic supply and demand factors would have dictated. This has implications for production planning and farm income for producers.

Lack of storage facilities in various producer communities was also identified as a major challenge. Even though it was ranked 4<sup>th</sup> by the respondents, absence of storage facilities compelled farmers to sell their product immediately after harvest when prices are very low. It also leads to high post-harvest losses which consequently reduces farmer's income. Some farmers even sell their farm produce and later buy the same commodities later during the lean season at very high prices.



Lack of government policy to promote marketing was identified as major problem to farmers. Currently there is no marketing policy in Ghana that help promote farm produce by small scale farmers who are mostly scattered and lack marketing skills and their ability to negotiate for correct prices are also very weak. The implementation of commodity exchange system expected to come with a comprehensive agricultural marketing policy which will address these problems.

Several other problems were reported by the respondents which are presented in the Table 4.5 above. Among them are no standards to follow in weighing maize for sale and this problem does not only affect farmers income through the use of oversized measuring equipment such as sacks and the bowls used at local centres called 'olonka' but also often lead to cheating from the buyers as suggested by the farmers. There is also no standard for quality and grading of maize in the markets. The criterion currently been employed in measuring by the market queens lie in the bosom of the traders which farmers seriously complained about.

### Proposed Solution to Problems of Market Queens and Farmers

The following solutions were proposed by both maize traders and farmer with regards to major constraints identified.

**Table 4.7: Proposed Solutions to Problems of Market Queens**

MARKET QUEENS	
Problems	Proposed solutions
Access to finance	1. Loans from commercial banks
	2. Support from friends and family
Lack of storage facilities	1. Building of own warehouse
	2. Reliance of commercially opened warehouse
Cost of transportation	1. Purchase of own vehicles
	2. Reliance of commercial transport
Low price of maize	1. Hedging of price
	2. Collusion to fixed market price

*Source: Authors computation*

The farmers on the other hand reported several solutions to the problem of marketing maize in their area. Some of these solutions include

1. The use of appropriate weighing scales will prevent cheating.
2. The need to form strong Farmer Based Organisation (FBO's) to help them negotiate for better prices for their produce.
3. Provision of credit facilities by the government. This would be help break the cycle of taking loan from traders on the condition of selling produce back to them.

4. Planting of maize during the minor season and harvesting of the maize planted during period to correspond with the dry season so that farmers do not worry about drying. This also reduces post- harvest losses.

## **Government Support to Maize Market Queens**

The results revealed that only 10 percent of traders interviewed had support from the Government while 90 percent of them do not. Among those who had such supports from the government mentioned business skills training, technical skills training and building of market sheds as some of the supports they received. On the other hand, 21.4 percent of farmers had support from government while 78.6 percent does not have any form of support from the government.

## **Perception of Farmers and Traders on Commodity Exchange Policy**

The respondents (Traders or MQs and farmers) views were sought with regard to commodity exchange programme. Only 28.6 percent of traders are aware of the commodity exchange system while 71.4 percent of them are not aware of the programme. They also reported that the introduction of the programme will affect the business negatively. About 61.5 percent reported negative effect on business, 30.8 percent reported positive effect and 7.7 percent were neutral about the effects on the business. While there is some level of awareness among the traders, they do not also support its introduction. The results also showed that traders in Techiman are well aware of the programme than those in Accra and its surroundings.

All most all the farmers reported that they will derive several benefits from the commodity exchange system if it is properly implemented. Below are the some of the benefits reported by the farmers:

- Transparency in price negotiations and the weighing system of the maize
- Gain more profits as a results of high prices because CEX will provide alternate market
- It will facilitate storage of maize and ease trading because more warehouses will be built
- It will provide efficient and transparent system of marketing
- It will enable them receive receipt that can be used to transact business and even get financial assistance from the banks.

## **Competition Issues in Maize Markets in Ghana**

Competition is defined as the economic rivalry between market players to attract consumers. In free markets however, competition ensure that firms become more efficient and offer a greater choice of product at lower prices. This ensures best use of available resources.

The findings revealed that maize markets in Ghana are fairly competitive as there are large numbers of maize sellers and buyers, selling identical goods (maize), free entry and also free exit. Indeed, underlying the seemingly competitive maize market structure, there are several practices that reduce the level of competition, such barriers to entry for large numbers of both buyers and sellers. Prominent among the measures is

the power relations inherent in the commodity associations. Also, the lack of **standardisation of the bags** used by traders to buy their maize created opportunities for the traders to 'cheat' farmers by often using 'oversized' bags. This example displays the difficult relationship between the farmers and the market queens/ trade associations.

There are also different views as to the role and benefits involved with Trade Associations specifically maize traders association in Ghana. Some researchers believe that they play an important role in markets, particularly in reducing the transactions costs through the dissemination of information about prices, supplies of produce, reputations, as well as price negotiations and contract enforcement. On the other hand, some actors think of such associations as cartels operating to exert their monopolistic powers and attempt to control the market.

There is anecdotal evidence that these associations of traders may collude to fix prices in the markets since in some cases they take the same truck and charges same prices throughout the market in the Region, control the flow of maize into the markets and prevent non-members from selling in the areas designated for specific maize traders unless they acquire permit and pay some registration fees, a common feature in the arrangement of traders in a market. Though important issues remain to be addressed as discussed in this report in relation to the activities of market queens, this research has found out that the activities of the markets largely agree with the school of thought and research of the former than the later in the study area.

## 5. Summary, Conclusion & Recommendations

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### Summary

Maize is Ghana's most important cereal crop produced by a vast majority of households in all parts of the country. Maize marketing is traditionally a private sector system which takes place in formal and informal markets. It was observed that, Ghana's domestic maize trade is largely dependent on a network of private women traders, or the market queens (MQs) who dominate the local and regional markets while larger groups of wholesalers engage in spatial arbitrage across regions/districts. The MQs or traders procure about 93.1 percent of the produce from Ghanaian farmers. The study therefore examines the activities of these traders and their impact on price determination, their procurement methods and to ascertain any uncompetitive practice in maize trade sector in Ghana.

A descriptive analysis of the data collected under the study shows that 52.4 percent of the maize traders are males and about 47.6 are females. About 90 percent of farmers are males while only 10 percent are females.

The market queens perform several activities to help farmers in their production process. The results revealed that these activities include providing financial assistance to farmers, storage facilities, regular supply of inputs, transport facilities and regular supply of raw material to processors.

The results also revealed that prices at which the MQs buy maize from the farmers are influenced by cost of transportation, location of the produce, quality of maize and quantity of maize. While similar factor also affect the price at which they sell to consumers. About 74.4 percent of traders stated cost of transportation as a major determinant of the price of the commodity, 19 percent of the traders stated location of the produce and 9.5 percent reported quality of maize as a major factor. With regard price at which farmers sell to traders, the results revealed that cost of production, cost of transportation and profit margin are major factors affect the selling price. About 71.4 percent of the traders reported that the prices at which they buy maize is arrived at through negotiation with farmers while only 28.6 percent report that they buy the maize at the predetermined price. The farmers, on the other hand, mentioned that the selling price is dictated by the trader. The traders obtained price information through private entities, media, government, NGOs and family and friends.

It was identified during the survey that market women play numerous roles in the socio-economic development of the country. These include employment generation, provision of income for households, food security for the urban community, source of revenue to the country and development of entrepreneurial skills. In spite of the above contributions, these women are faced with several challenges some of which are: access to credit, cost of transportation, and nonpayment of loans by farmers, lack of storage facilities and lack of drying facilities.

The survey results revealed that there is inadequate support from the government to market queens. Only 10 percent of traders received support from the government while 90 percent of them do not receive any form of support from the government.

Only 28.6 percent of the traders are aware of the commodity exchange system while 71.4 percent of them are not aware of the programme. They also reported that the introduction of the programme will affect the business negatively. About 61.5 percent reported negative effect on business, 30.8 percent reported positive effect while 7.7 percent were neutral about the effects on the business.

## Conclusions

The market queens (market women or traders) in the informal sector play critical roles in supplying the food needs of the growing urban population, source of revenue, provision of income to households, development of entrepreneurial skills and provision of employment opportunities for the labour force and providing a market for farmers. These roles need to be acknowledged by policy makers. The survey has revealed that regular capacity building programmes for market queens, access to credit, and improvement in road/transport infrastructure, establishment price information centres, regulation of standards for measurement and formation of farmer based organisations could enhance the operations of the women in the market and reduce uncompetitive practices in various markets.

## Recommendations

Market women (market queens) have been the main actors of maize trade for several decades in Ghana. However, their activities are faced with many challenges and the formation of market traders association has the potential of influencing the efficient conduct of the market. To enhance the activities of this market queens and also prevent uncompetitive practices in various market centres, government action in the following areas would greatly enhance the roles that market queens play in food supply chain and the development of the country.

### *Capacity Building Programmes of Market Queens*

It is recommended that the Metropolitan, Municipal and District Assemblies (MMDAs) in collaboration with the National Board of Small Scale Industries (NBSSI) and Department of Statistical Research and Information Department (SRID) of Ministry of Food and Agriculture (MOFA) organise regular marketing and managerial capacity training programmes for the traders to upgrade their business skills and capacity. Evaluation of the lessons taught should be an important component of the stakeholders' programmes of action. The evaluations would inform the nature of future interventions in the area of capacity building to enhance the roles of the maize traders towards the development of the economy.

### ***Provision of Credit Facilities/Incentives***

Although entry and exit to markets for new entrepreneurs is largely free, the existing market women are faced with inadequate working capital. An improvement in credit facilities for traders would increase market competitiveness. Given the large proportion of maize purchase by these market women, their inability to continue the business due to high cost capital will lead to the collapse of the maize trade sector. Effort should be directed by government to extend the MASLOC facilities to cover large number of the traders. The huge capital requirement has made it difficult for the youth to venture into the maize trade business. Government, NGOs should assist any youth who willing to undertake such business with technical training and financial support.

### ***Improvement in Road Infrastructure***

Improved roads reduce risk and marketing costs, attract more vehicles and stimulate competition among traders. Moreover, lower marketing costs and reduced risks help reduce the margin between producer and consumer prices. It is therefore recommended that policy initiatives be directed towards ensuring efficient transportation of agricultural commodities across various markets. These include investment in new road construction especially the trunk roads and maintenance of the old ones.

### ***Establishment Price Information Centres***

The creation of price reporting and information services for major agricultural commodities would lead to better transparency. Price and transactions on the Ghana market should be broadcast daily. At the market level, all price quotations in the region should be announced by the by district assemblies through the Department of Food and Agriculture. This price information service requires the introduction of a grading and a uniform measurement and weighing system for the entire country in order to reduce cheating of famers. There is a need for re-organisation and re-equipping of the Statistics, Research and Information Division of Ministry of Food and Agriculture in terms of finance, facilities and personnel to be able to effectively perform these functions.

### ***Formation of Farmer Based Organisations***

The establishments of effective market oriented Farmer Based Organisations (FBOs) will help strengthen farmer's negotiation skills and help give members of the group collective bargaining power so as to get reasonable market prices for their product.

### ***A Public Private Partnership (PPP) to Build Storage Facilities***

Government should collaborate with MQs to establish storage facilities across the country especially in the urban areas where consumption of maize is highest. This can be done by allocating some funds and requiring the MQs to contribute their quota. A PPP arrangement is better since history has shown that fully managed governments facilities are not efficient. Alternatively governments can allocate a long term investment fund with little or no interest for the MQs to establish their own storage facilities and payback the money over time.

### ***Establishment of National Laws, Regulations and Guidelines to Regulate the MQs industry***

Steps should be taken to formulate laws and regulations that will guide the activities of the traders. This will sanitise the industry and make it more formal to the benefit of all stakeholders. In making these laws attention should be given to the very critical issues of standardisation and pricing. There should be a law that should require uniformity in the standards of measuring across the whole country to address the current situation where there is complete lack of standard.



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