

Structure, Conduct and Performance of Groundnuts Markets in Northern and Central Malawi: Case Studies of Mzimba and Kasungu Districts

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Abstract

This paper explores and assesses efficiency of the structure, conduct and performance of groundnuts markets in northern and central Malawi. Smallholder farmers and traders involved in groundnuts were interviewed. Using time series price data, the spatially distinct groundnuts markets were also examined. The results show that most smallholder farmers adopted Chalimbana and CG7 groundnut varieties, over-recycle groundnut seed, and do not use recommended seed rate. Five different groundnut marketing channels are identified. However, there is minimal value addition in all channels. The markets are weakly integrated and segmented with a few sellers. The study highlights the need for organised groundnut seed systems to ensure supply of high quality seed to farmers; strengthened market oriented extension services; improved roads to production areas; improved and affordable technologies on production and value addition; vibrant farmer organisations and improved market information generation and dissemination to farmers and traders.

Keywords: Groundnut Market, Structure, Conduct, Performance, Efficiency, Margin, Malawi

1.0 Introduction

1.1 Overview of Agricultural Sector in Malawi

Agriculture continues to remain the main driver of Malawi's economy despite some growths in the industrial and manufacturing sectors. It contributes 39% of the country's Gross Domestic Product (GDP), employs 85% of the country's workforce in food and cash production, agro-industries and inputs and outputs markets and accounts for more than 90% of the country's foreign exchange earnings (Government of Malawi [GoM], 2009). It is also the main source of savings and investible funds in Malawi—about 61% of the country's households depend on crop sales for their incomes. The sector consists of smallholder and estate subsectors. The estate subsector is mainly for production of high value cash crops such as tobacco, tea, sugar, coffee and macadamia (Kachule, 2011). The smallholder subsector accounts for more than 70% of agricultural GDP (GoM, 2009). One of the crops grown under smallholder subsector is groundnuts. Groundnuts provide about 25% of household's agricultural income (Minde *et al.*, 2008).

1.2 Groundnuts Production and Marketing

Groundnut is produced by farmers in all districts of Malawi as source of food and income, livestock feed, for export and also for improving soil fertility. About 70% of the total groundnut production is consumed locally. Over the past 10 years, overall production has not significantly increased in Malawi. The annual unshelled groundnut production grew from 131,543T in 1999 to 282,054T in 2009 (FAO STAT, 2011). This production accounted for 2% of total groundnuts production in Africa. By 2009, Malawi ranked as 19th largest producer of groundnuts in the world (FAO STAT, 2011).

In terms of marketing, the Agricultural Development and Marketing Corporation (ADMARC), a statutory corporation, was the sole buyer and supplier of produce and inputs respectively. However, since mid 1980s government liberalized market to allow private sector play an active role in the marketing of inputs and produce in Malawi. Simtowe *et al.*, 2009 noted that Malawi ranked 9th exporter of groundnuts in sub-Saharan Africa. The export volume over the past ten years has been small and with lots of fluctuations. By 2009, Malawi's groundnuts exports had increased to 19,879T (FAO STAT, 2011).

The government still feels there is low groundnut production and marketing despite market liberalization opportunity to smallholder farmers and traders (GoM, 2008). This contributes to poor human nutrition status, slow growth of livestock and crop cereals sectors, low income and low foreign exchange earnings from groundnuts. The low and fluctuating groundnuts production and marketing in Malawi is an indication of market failure to stimulate production and marketing.

1.3 Objectives of the Study

In order to address problems associated with market failure so as to increase groundnuts production and marketing, knowledge of the structure, conduct and performance of groundnuts markets is required. The type of market structure that prevails in a market determines efficiency of marketing system (conduct and performance of markets). The knowledge of structure, conduct and performance of groundnuts markets facilitates further innovations and productivity growth in the groundnuts subsector. Unfortunately, no studies have been conducted in Malawi to analyze or investigate the structure, conduct and performance of groundnuts markets. This study therefore aims at analysing the structure, conduct and performance of groundnuts markets in Northern and Central Malawi. Specifically, the paper aims to (i) analyse existing marketing systems of groundnuts (ii) conduct groundnuts profitability analysis (iii) identify factors affecting groundnuts production and (iv) identify smallholder farmer's constraints to groundnuts production and marketing.

2.0 Materials and Methods

2.1 Market Structure, Conduct and Performance

Market structure refers to a set of market characteristics that determine the economic environment in which a firm operates (Thomas and Maurice, 2011). It is characterized on the basis of four industry characteristics: (i) number and size distribution of active buyers and sellers and potential entrants; (ii) degree of product differentiation; (iii) amount and cost of information about product price and quality and (iv) condition of entry and exit (Hirschey *et al.*, 1993).

Market conduct refers to the patterns of behaviours that firms follow in adapting or adjusting to the markets in which they sell or buy. The dimensions of conduct include methods employed by firms in determining the price of an output and sales promotion policy, the presence or absence of coercive tactics directed against either established rivals or potential entrants (Bain, 1968).

Market performance refers to the economic results that flow from the industry and how well it performs in terms of efficiency and progressiveness or innovation, given its technical environment (Bain, 1968). It is the impact of structure and conduct as measured in terms of the variables such as prices, costs and volume of output (Bresser and King, 1970).

2.2 Analytical Framework/Procedure

The structure, conduct and performance of markets have been analysed by researchers using various different approaches. Nambiro *et al.*, (2001) analysed the structure and conduct of the market in Trans Nzoia district (Western Kenya) in order to understand the organisation of the market and assess the degree of competition in hybrid maize seed production and retailing using Gini coefficients.

Enibe et al., (2008) described the structure, conduct and performance of banana market in Anambra State of Nigeria using descriptive statistics, Gini coefficients, price spread, behaviour of middlemen, conduct of marketing functions and gross marketing margins.

Giroh et al., 2010 also examined the structure, conduct and performance of farm gate marketing of natural rubber in Edo and Delta States of Nigeria using Gini coefficient, Budgetary technique, Market margins, Marketing Costs and Rate of Return to investment. Odhiambo et al., (2006) analysed the structure and performance of beans marketing system in Nairobi using descriptive statistics, concentration ratios and co-integration models. Bain (1968) observed that by analyzing the level of the marketing margins and their cost components, it is possible to evaluate the impact of structure and conduct characteristics on market performance.

In this study, a number of analytical approaches were used. They include: Herfindahl-Hirschman Index (HHI), Marketing Margins, Marketing Efficiency Index (MEI), Price Spread, Cobb Douglas Production Function, and Spatial Market Integration (using bivariate correlation coefficients of price difference). Market structure was determined by assessing market concentrations and entry conditions of the markets using HHI as follows:

$$HHI = \sum_{i=1}^n MS_i^2 \text{-----} (1)$$

Where: MS_i is the Market Share of seller $_i$; and n is the number of sellers in the market. The market shares were calculated based on quantities of groundnuts handled by each seller as follows:

$$MS_i = \frac{V_i}{\sum_{i=1}^n V_i} \text{-----} (2)$$

V_i is the quantity of groundnuts handled by seller i (in kg); and $\sum V_i$ is the total quantity of groundnuts handled by sellers in the market (in kg)

Marketing margins were calculated by determining price variations at different segments and compare them with the final price paid by the consumer. The formula for total marketing margin was as follows:

$$Total\ Gross\ Marketing\ Margin = \left(\frac{Retail\ Price - Farm\ Gate\ Price}{Retail\ Price} \right) * 100 \text{-----} (3)$$

The price spread was applied to measure the degree of pricing efficiency. For farmers, it was calculated by deducting costs of marketing from gross price. For traders in all the channels, the price-spread focused on the trader’s surplus as a percentage of total marketing costs.

Marketing efficiencies of all channels were determined by MIE. According to Acharya and Agarwal (2001), MIE is the ratio of net price received by the farmer to the total marketing cost plus total margin as follows:

$$MEI = \frac{NP}{MM+MC} \text{-----} (4)$$

Where MEI is the Marketing Efficiency Index; NP is the Net Price received by the farmers (MK/Kg); MM is the Total Net Marketing Margin (Total Traders Surplus) for Traders in the channel; and MC is the Total Marketing Cost incurred by Traders in the channel.

The performance of groundnuts markets was also assessed by the volume of output produced by farmers (and its underlying factors) using production function. The transformed Cobb-Douglas production model (which combined both physical and non physical factors of production) was applied as follows:

$$\ln OUTPUT = \ln \beta_0 + \beta_1 \ln LAB + \beta_2 \ln SEED + \beta_3 EDUCAT + \beta_4 EXTVISIT + \beta_5 VOLSOLDLY + \beta_6 DISTMKT + \beta_7 FARMGP + \beta_8 AGE + \mu_i \text{-----} (5)$$

Where:

- lnOUTPUT = Natural log of Groundnuts produced in household i (kg)
- lnLAB = Natural log of amount of labour used in household i (person hours)
- lnSEED = Natural log of amount of seed used in household i (kg)
- EDUCAT = Education of household head i (number of years in school)
- EXTVISIT = Whether a household is in contact with an extension worker (1=yes and 0=no)
- VOLSOLDPY = Volume of Groundnuts sold previous year (Kg)
- DISTMKT = Distance to market (in Km)
- FARMGP = Farm Gate Price (MK/Kg)
- AGE = Age of the household i (years)

β_i = Coefficients (parameters) to be estimated ($i= 0,1,2,3,4,5,6,7,8,9$)
 u_i = Error term

Spatial market integration analysis was conducted to compliment assessment of performance of groundnuts markets in Northern and Central Malawi. Market integration refers to the price transmission in the marketing chain. Spatial market integration reflects the effects of a price change in one market on the price of the same commodity in another market location. Bivariate coefficients of Correlation of price differences were calculated determine degree of groundnut market integration.

2.3 Data Collection

Primary data was collected from groundnuts smallholder farmers and traders in Mzimba and Kasungu districts using questionnaires and focus group discussions. The two districts are among the major groundnuts producing areas for Northern and Central Malawi. Stratified random sampling method was used to sample a total of 115 farmers (52 in Mzimba and 63 in Kasungu) and 67 traders. Specifically, farmers were from Extension Planning Areas of Santhe, Lisasadzi, Kasungu-Chipala and Kaluluma (for Kasungu) and Luwerezzi, Champhira and Vibangalala (for Mzimba) The sampled traders were from the markets of Mzuzu, Mzimba, Kasungu, Jenda, Embangweni, Nkhamenya, Chatoloma, Chinkhoma, Santhe and Lilongwe. Mzuzu and Lilongwe are the major market outlets for groundnuts produced in the study area. The study also employed the use of monthly time series data on price of groundnuts collected from April 2005 to June 2011 for the aforementioned markets.

3.0 Results and Discussions

3.1 Groundnuts Varieties and Seed Sources for Farmers

There are over 10 improved government released groundnut varieties in Malawi (GoM, 2008). However, the most adopted and used varieties are Chalimbana (67.1% of farmers) and CG7 (64.3% of farmers). Smallholder farmers access seed from companies (such as ADMARC), agro-dealers, recycling, traders, NGOs, Research stations and government projects. The major source of seed among farmers is recycling (67.8% of farmers).

3.2 Groundnuts Marketing Channels and Functions

The majority of farmers (85.2%) sold their produce to traders. The traders consisted of vendors, retailers, wholesalers and individual households or fellow farmers. About 60.9% of farmers sold their produce to vendors, 22.6% to wholesalers, 7.0% to retailers and 7.0% to fellow farmers. Vendors are the major buyers of groundnuts produce from farmers because they are accessible and available all the time. Farmers (29.6%) also sold groundnuts produce to consumers at designated government markets. Five marketing channels were identified. Channel 1 consisted of farmers who sold groundnuts to vendors at a local market in their area. The vendors then incur storage, transport and packaging costs for groundnuts to reach consumers.

Channel 2 consists of farmers that sold groundnuts to vendors who in turn sold groundnuts to the retailers. The retailers then sold to final consumers. Channel 3 has farmers that sold directly to retailers, who in turn sold to individual consumers. The retailers in channels 2 and 3 consisted of retail shop owners, super markets and agro-dealers. Channel 4 consisted of farmers that sold groundnuts directly to consumers. Channel 5 comprised of farmers who sold groundnuts to wholesale-retail companies that in turn sell to consumers. The companies include ADMARC, Mulli Brothers Group, National Smallholder Farmers Association of Malawi, Farmers World, Export Trading and Takondwa Company. The major marketing functions carried out in all five marketing channels are storage, grading and processing.

3.3 Market Structure of Groundnuts

Herfindahl-Hirschman Indices were calculated to assess market concentration for the markets of Mzuzu, Mzimba, Jenda, Nkhamenya, Chatoloma, Chinkhoma, Kasungu, Santhe, Embangweni and Lilongwe. The degree of seller concentration was high (above 0.5) in the markets of Chatoloma, Embangweni, Kasungu, Jenda and Nkhamenya. This means that the markets were dominated by a few sellers. The markets for Chinkhoma, Lilongwe, Mzimba, Mzuzu and Santhe were also dominated by a few sellers since their HHI were above perfect competition index (0.1) despite being below 0.5. Table 1 below shows HHI of seller concentration for each market.

Table 1: HH Indices of Seller Concentration in the Markets

Market	Groundnuts HHI Indices
Chatoloma	0.879
Chinkhoma	0.502
Embangweni	0.710
Jenda	0.850
Kasungu	0.607
Lilongwe	0.154
Mzimba	0.280
Mzuzu	0.109
Nkhamenya	0.924
Santhe	0.271

The dominance of few sellers in most markets implies low competition among sellers. This would in turn make farmers receive low prices for their groundnuts produce. It would also make other potential traders fail to penetrate the markets resulting into no further innovations in the groundnuts industry.

3.3 Conduct of Groundnuts Markets

There were no trader based organisations or marketing groups in all the markets to affect the bargaining power. This means that setting of prices was done on individual basis. The behaviour was reflected in purchase of produce from farmers in that it's the individual traders that most of times determine the price. The determination of prices in groundnuts markets was dependent on the demand (58.2%), transport cost (56.7%), quality in terms of maturity and grading (26.9%) and purchase price (20.9%).

3.4 Performance of Groundnut Markets

3.4.1 Marketing Margins and Marketing Efficiency Indices

The mean selling prices (MK/Kg) at farm gate, vendor, wholesale-retailer and retailer levels were K94.62, K174.72, K227.93 and K262.33 respectively. The marketing margins were calculated for all the five marketing channels. Farmers' share was lowest (73.76%) in channel 1 and highest (100.00%) for channel 4. The producer share increased to 100% because farmers played the role done by vendors and retailers and took the profits that could have gone to them. The producer share for channels 2 and 3 was the same (75.63%) despite the difference in the number of players in between each of the channels. The reason for the same producer shares was because farmers sold their produce to all the types of traders in their locality. So, farmers' selling price was the same for all the channels but the consumer price differed. Table 2 below shows marketing margins and producer share for each channel.

Table 2: Gross Marketing Margins (GMM in %)

GMM	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5
Total GMM	45.84	63.93	63.93	0.00	58.49
GMM-Middleman	45.84	30.53	-	-	-
GMM-Wholesale-Retailers	-	-	-	-	58.49
Retailers	-	33.40	63.93	-	-
Producer Participation	73.76	75.63	75.63	100.00	74.34

The price spread method was applied to assess efficiency of marketing channels by removing marketing costs. Traders' surplus was calculated as a percentage of the total marketing costs to determine how well markets perform in terms of prices. The mean vendor's surplus was 58.5%, wholesale-retailer's surplus was 117.3%, retailers' surplus was 36.5% (for channel 2) and 105.5% (for channel 3). This implies that all the intermediaries make super normal profits as since they are above the acceptable range of 20-30%, according to Hay and Morris (1979) as quoted by Nakhumwa (2001). Marketing Efficiency Indices were then calculated to determine level of marketing efficiency for all channels. Channel 4 was the most efficient since it had the highest index of positive infinity. This was followed by Channels 1, 5, 2 and 3 respectively. Table 3 below shows the price spread and marketing efficiency indices.

Table 3 Groundnuts Price Spread and Marketing Efficiency Indices

Participant	Description	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5
Farmers	Selling Price	94.62	94.62	94.62	94.62	94.62
	Storage	2.27 (1.3)	2.27 (0.9)	2.27 (0.9)	2.27 (2.4)	2.27 (1.0)
	Grading	3.1 (1.8)	3.1 (1.1)	3.1 (1.1)	3.1 (3.3)	3.1 (1.4)
	Net Margin	74.73 (42.8)	162.34 (61.9)	162.34 (61.9)	89.25 (94.3)	127.94 (56.1)
	Gross Margin	80.1 (45.8)	167.71 (63.9)	167.71 (63.9)	0	133.31 (58.5)
Vendors	Farmers Share	73.76	75.63	75.63	100	74.34
	Buy price	94.62 (85.9)	94.62 (85.9)	0	0	0
	Transport Cost	12.24 (11.1)	12.24 (11.7)	0	0	0
	Storage Cost	1.84 (1.7)	1.84 (1.7)	0	0	0
	Market Costs	1.51 (1.3)	1.51 (1.3)	0	0	0
	Total Costs	110.21	110.21	0	0	0
	Selling Price	174.72	174.72	0	0	0
	Traders	64.51 (58.5)	64.51 (58.5)	0	0	0
	Surplus					
	Wholesale-Retailers	Buy price	0	0	0	0
	Transport Cost	0	0	0	0	7.83 (7.5)
	Storage Cost	0	0	0	0	0.62 (0.6)
	Market Costs	0	0	0	0	1.83 (1.7)
	Total Costs	0	0	0	0	104.9
	Selling Price	0	0	0	0	227.93
	Traders	0	0	0	0	123.03
	Surplus					(117.3)
Retailers	Buy price	0	174.72 (90.9)	94.62 (74.1)	0	0
	Transport Cost	0	7.5 (3.9)	19.74 (15.5)	0	0
	Storage Cost	0	4.32(2.2)	6.16 (4.8)	0	0
	Market Costs	0	5.63 (2.9)	7.14 (5.6)	0	0
	Total Costs	0	192.17	127.66	0	0
	Selling Price	0	262.33	262.33	0	0
	Traders	0	70.16 (36.5)	134.67	0	0
	Surplus			(105.5)		
Marketing Efficiency Index		1.11	0.53	0.53	∞	0.67

NB: Numbers in the parentheses are percentages of retail price (for farmers) and percentages of cost (for vendors, retailers and wholesale-retailers)

3.4.2 Groundnuts Production Analysis

The transformed Cobb-Douglas production model was used to determine the factors that affect production of groundnuts. The analysis shows that quantity of groundnuts seed, extension-farmer contact and volume of groundnuts sold in the previous (last) year positively and significantly influenced groundnuts production. This implies that a unit percent increase in each of the aforementioned variables will lead to an increase in groundnuts production by their percent parameter estimates (size of their coefficients) and vice-versa. It is quite obvious that an increase in quantity of groundnuts seed will lead to an increase in area planted to groundnuts thereby increasing production (and vice versa).

The extension-farmer contact showed a positive relationship with groundnuts production because farmers that are more visited or in contact with extension workers are likely to follow recommended groundnuts husbandry practices and also adopt new or improved technologies on production hence increasing groundnuts production. The volume of groundnuts sold in the previous year determines how much the farmer should produce in the following season. An increase in the volume of groundnuts sold in the previous year makes the farmer allocate more resources to that crop to increase production in the following year and vice versa.

Labour, distance to the market and farm gate price and education level also positively influenced groundnuts production. This means that a unit percent increase in each of the variables (for the household) will result into an increase in groundnut production by the magnitude of their parameter estimates. Similarly, a unit percent decrease in each of the variables will result into a decrease in groundnut production by the percent magnitude of their parameter estimates. This could be so because an increase in labour enables the farmer to increase amount of land cultivated to groundnuts thereby increasing production. As for distance to market, it was surprising to find a positive relationship with groundnuts production. However, the reason could be that markets that are very far from production areas tend to fetch high prices of groundnuts. This makes farmers opt for these markets to realise more income as a result of high production hence a positive relationship with groundnuts production.

The rise or increase in farm gate price (if done before planting) makes the farmer allocate more resources to groundnuts thereby contributing to increase in production. Similarly, a decrease in farm gate price makes the farmer reduce or sometimes abandon production of that crop thereby decreasing production. Education level of the household head positively contributed to an increase in groundnuts production because as education level of a farmer increases, the understanding and management ability also improves (increases). This helps the farmer to easily and quickly adopt improved technologies and recommended farming practices. It also helps the farmer to properly manage the crop and easily access extension services on groundnuts through reading. The overall result is an increase in groundnuts production.

Age negatively influenced groundnuts production. This implies that an increase age of the farmer will lead to a decrease in groundnuts production. This could be so because further increase in age makes the farmer to be less productive thereby decreasing groundnuts production. This is economically justified by the fact that the curve of production of an individual increases with age, reaches a maximum before decreasing with increase in age. This is true too with the curve of margin productivity of labour that increases with age, reaches maximum before decreasing in old age. Table 6 below shows the coefficients, standard errors, t-values, p values, variance inflation factor (VIF) and the white's test. The coefficients constitute parameter estimates.

Table 4: Parameter Estimates of Transformed Cobb Douglas Production Model on Groundnuts Production in Mzimba and Kasungu, 2011

Variable	Parameter Estimate	Standard Errors	t-ratio	p-value	Variance Inflation Factor	Tolerance
lnLABOUR	0.095	0.149	0.638	0.526	1.230	0.813
lnSEED	0.406***	0.123	3.304	0.002	1.396	0.716
EDUCAT	0.051	0.032	1.578	0.120	1.214	0.824
AGE	-0.013	0.009	-1.559	0.125	1.205	0.830
EXTVIST	0.496**	0.218	2.271	0.027	1.150	0.870
VLSOLD LY	0.002***	0.000	3.581	0.001	1.347	0.742
FARMGATP	0.001	0.003	0.518	0.607	1.102	0.908
DISTMKT	0.008	0.011	0.742	0.461	1.112	0.899
CONSTANT	3.253***	1.203	2.703	0.009		
R-squared	0.503					
Adj R-squared	0.431					
White's Test	p = 0.315					

Note: Significant at *** (1%), ** (5%)

3.4.3 Spatial Market Integration of Groundnuts Markets

The spatial market integration between two markets for Mzuzu, Mzimba, Jenda, Embangweni, Santhe, Kasungu and Lilongwe markets was measured using bivariate correlation coefficients of price difference.

Differencing removes time trends, non-stationarity and other problems associated with time series data. The coefficients ranged from -0.03 (for Mzimba—Kasungu) to +0.17 (for Embangweni—Lilongwe). Markets that have negative coefficients (such as Mzuzu—Mzimba, Jenda—Mzuzu, Embangweni—Mzimba, Lilongwe—Jenda) are not integrated to each other. So, an increase in price of groundnuts in one market would not lead to an increase in groundnuts prices in the other markets. This could be due to poor infrastructure and lack of information flows between spatially separated markets. On the other hand, markets with positive coefficients (such as Mzuzu—Kasungu, Jenda—Embangweni, Mzuzu—Lilongwe, Kasungu—Jenda, Lilongwe—Kasungu) are integrated to each other. An increase in price in one market would lead to an increase in price in other markets. This indicates competitiveness and information and trade flows between spatially separated markets. The results are shown in Table 5 below.

Table 5: Groundnuts Bivariate Correlation Coefficients of Price Difference

	Mzuzu	Mzimba	Embangweni	Jenda	Santhe	Kasungu	Lilongwe
Mzuzu	1.00						
Mzimba	-0.14	1.00					
Embangweni	0.01	-0.04	1.00				
Jenda	-0.08	0.14	0.01	1.00			
Santhe	0.12	0.10	0.06	0.08	1.00		
Kasungu	0.03	-0.03	0.14	0.14	-0.04	1.00	
Lilongwe	0.13	-0.18	0.17	-0.07	0.05	0.02	1.00

3.4.4 Constraints to Groundnuts Production and Marketing

The smallholder farmers and traders cited various constraints hindering increased groundnuts production and marketing. The major constraints included: lack of markets, low producer prices, labour demanding, lack of improved seeds, pests and diseases, low supply of produce, lack of technology for value addition and high market fees. Figures 1 and 2 show percentages of farmers and traders that indicated aforementioned constraints to groundnuts

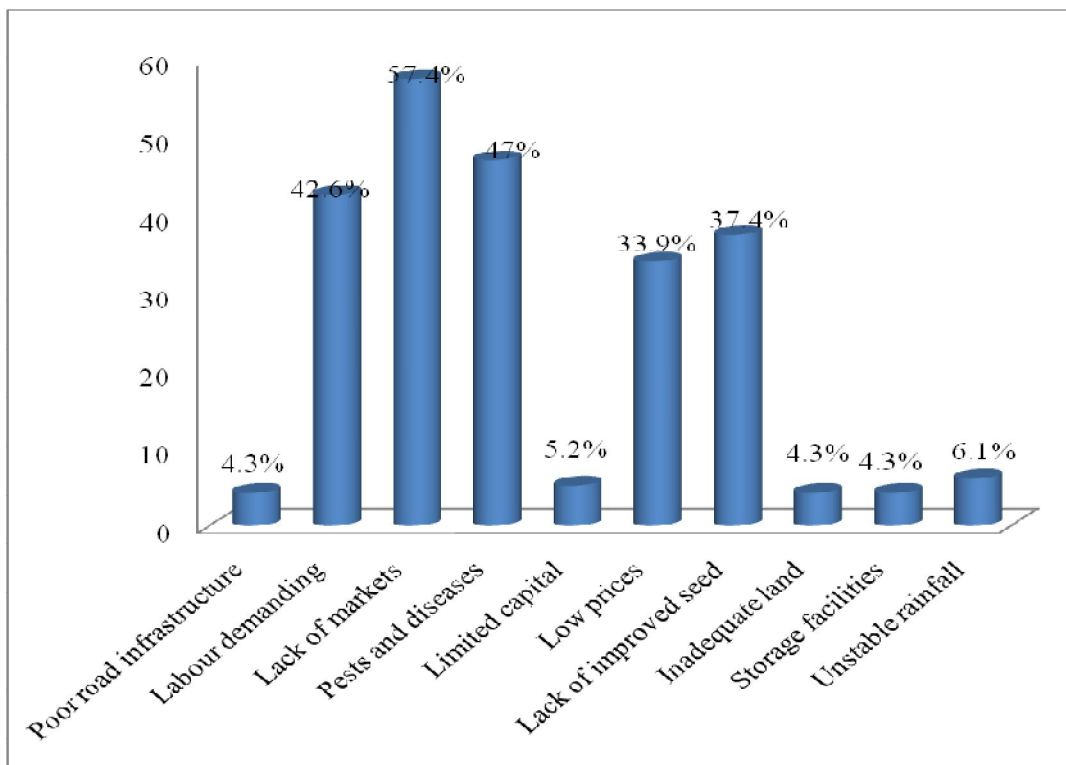


Figure 1 Farmers' constraints to groundnuts production

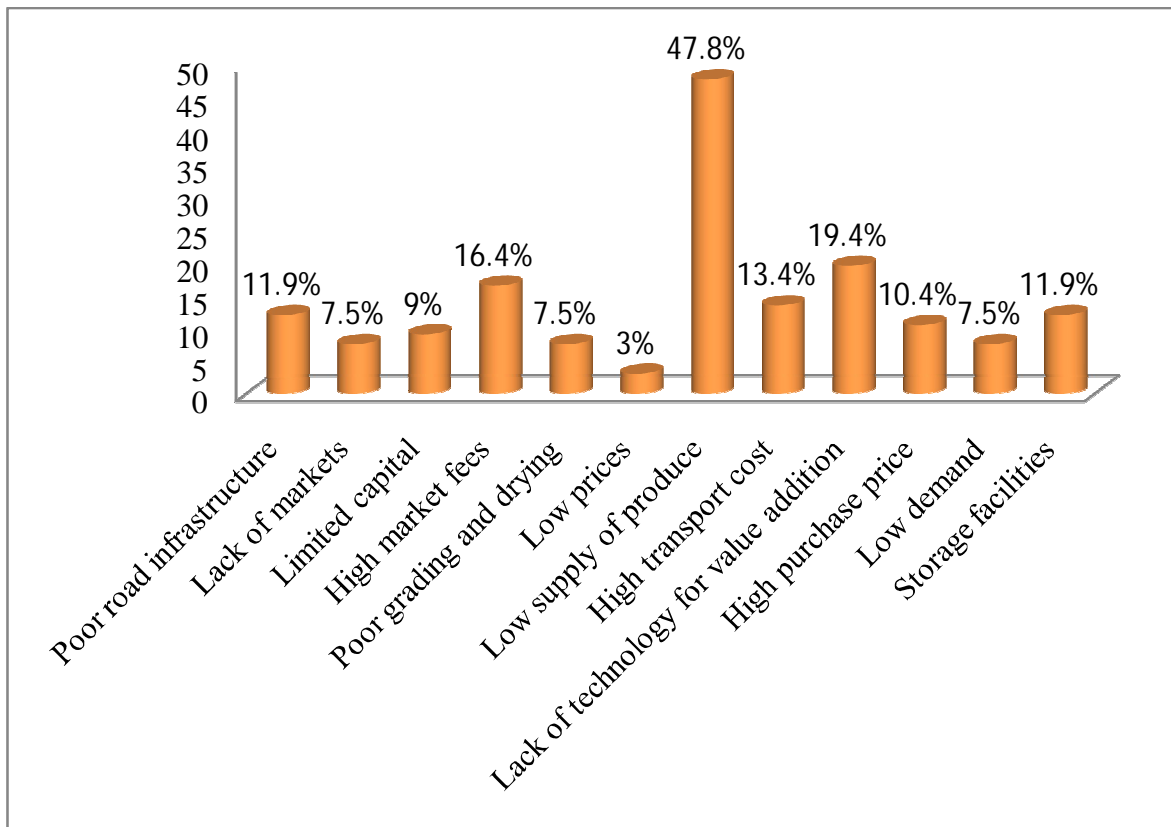


Figure 2 Traders' constraints to groundnuts marketing

4.0 Conclusions

The study has shown that there are five groundnuts marketing channels. However, there is minimal value addition in all the channels. Most farmers over recycle seed due to inaccessibility and unavailability of improved seed. The markets consist of a few groundnut sellers. Groundnut traders make supernormal profits. There are a number of factors and constraints to groundnuts production and marketing as identified by the study.

5.0 Recommendations

Based on the results and discussions, the study made the following recommendations:

- Establish organised groundnuts seed systems to ensure supply or availability of high quality seed to farmers. Farmers also need training in certified seed production under phytosanitary control of research and extension. The building of farmer capacity in improved seed production seems to be sustainable than other systems that do not involve farmers.
- Strengthen market oriented extension services on groundnuts among government, farmer organisations and non-governmental organisations. This will help to increase production of high quality groundnuts.
- Government and other organizations should improve roads and road networks to production areas to facilitate trading of the produce and acquisition of farm inputs for use during production. Market infrastructures and storage facilities should also be increased and improved to ensure availability of high quality products on the market.
- There is need to develop and improve existing technologies on production and value addition. The technologies should be affordable to most farmers and traders. These will ensure an increased productivity, production of high quality produce, reduce losses or wastage and increase value addition.
- Vibrant farmer organisations (such as cooperatives) should be developed to ensure farmers are more organized. Farmer organizations will help farmers in accessing high quality farm inputs, better markets, better extension services, credit and capacity building.

- Promote value adding activities such as processing among farmers and traders. Processing of groundnuts into different products would lead to an increase in the market value thereby increasing the margins. In addition, technologies that add value need promotion at all levels.

6.0 References

- Acharya, S.S. and Agarwal, N.L. (2001). *Agricultural Marketing in India*, Oxford and IBH Publishing Co., New Delhi, India.
- Bain, J.S. (1968). *Industrial Organization*, 2nd ed., John Wiley and Sons, New York.
- Bresser, R.G. and King, R.A. (1970). *Market Prices and Interregional Trade*, John Wiley and Sons, New York.
- Enibe, D.O., Chidebelu, S.A.N.D., Onwubuya, E.A., Agbo, C., and Mbah, A.A. (2008). Policy Issues in the Structure, Conduct and Performance of Banana Market in Anambira State, Nigeria, *Journal of Agricultural Extension* .12 (2), 32-40.
- Food and Agriculture Organization of the United Nation, (2011). FAOSTAT-FAO Statistical Databases. (Online) Available: <http://faostat.fao.org> (15th September 2010).
- Giroh, D.Y., Umar, H.Y., and Yakub, W. (2010). Structure, Conduct and Performance of Farm Gate Marketing of Natural Rubber in Edo and Delta States, Nigeria, *African Journal of Agricultural Research* 5 (14), 1780-1783.
- Government of Malawi, (2008). *Guide to Agricultural Production and Natural Resources Management*, Ministry of Agriculture and Food Security, Lilongwe, Malawi.
- Government of Malawi, (2009). *The National Agricultural Policy*, Ministry of Agriculture and Food Security, Lilongwe, Malawi.
- Hirschey, M. and Pappas, J.L. (1993). *Managerial Economics*, 7th ed., Harcourt Brace and Company International Edition, New York.
- International Fund for Agricultural Development, (2003). Promoting Market Access for the Rural Poor in order to achieve the Millennium Development Goals. (Online) Available: http://www.rmportal.net/library/content/Rural_Development/markets.pdf (14th December 2010).
- Kachule, R.N. (2011). *Performance of the Agricultural Sector in Malawi, Paper presented to Malawi Agricultural Sector Investment Programme (MASIP) Secretariat on Priority Setting*, Bunda College of Agriculture, Lilongwe, Malawi.
- Minde, M., Madzonga, O., Kanthiti, G., Phiri K., and Pedzisa, T. (2008). *Constraints, Challenges and Opportunities in Groundnuts Production and Marketing in Malawi*, Report No 4, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT).
- Nambiro, E., Groote, H., and Kosura, W.O. (2001). Market Structure and Conduct of the Hybrid Maize Seed Industry: A case study of the Trans Nzoia District in Western Kenya, *Seventh Eastern and Southern Africa Regional Maize Conference 11-15th February 2001*, 674-479.
- Nankhumwa, C. (2001). *Assessment of marketing opportunities and constraints of groundnuts and soybean in Malawi: A case study of Thiwi/Lifidzi and Mchinji Rural Development Projects*, MSc Thesis, University of Malawi, Lilongwe, Malawi.
- Odhambo, M.O, Kosura, W.O. and Kibiego, M.B. (2006). *Analysis of the Structure and Performance of Bean Marketing System in Nairobi*: Poster Paper prepared for presentation at the International Association of Agricultural Economists Conference, Gold Coast, Australia.
- Pomeroy, R.S. and Trinidad, A.C. (1995). *Industrial Organization and Market Analysis, Fish Marketing*. In G.J Scott (Ed), *Prices, Products and People: Analyzing Agricultural Markets in Developing Countries*, Lynne Reiner Publishers, London.
- Simtowe, F., Shiferaw, B., Abate, T., Kassie, M., Monyo, E., Madzonga, O., Silim, S., Muricho, G. (2009). *Assessment of the current situation and future outlooks for the groundnuts subsector in Malawi*, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT®), Lilongwe, Malawi.
- Thomas, C.R. and Maurice, S.C. (2011). *Managerial Economics: Foundations of Business Analysis and Strategy*. 10th ed., John Wiley and Sons, New York.
- Simtowe, F., Shiferaw, B., Abate, T., Kassie, M., Monyo, E., Madzonga, O., Silim, S., Muricho, G. (2009) International Crops Research Institute for the Semi-Arid Tropics (ICRISAT®).
- Thomas, C.R. and Maurice, S.C. (2011) *Managerial Economics: Foundations of Business Analysis and Strategy*, 10th Edition.