

*Full Length Research Paper*

## Ethiopia commodity exchange: Marketing prospects and challenges in focus

Mohammed Ahmed,

Management Department, College of Business and Economics, P.O.Box 445, DebreBerhan University, Ethiopia.

Received 14 April 2015; Accepted 15 June, 2015

The purpose of this paper is to identify the commodity market opportunities and contests of Ethiopia Commodity Exchange market (ECX). The Ethiopian commodity exchange market plays a paramount role to alter Ethiopian agriculture commodity market history and transform the economy through a dynamic, efficient and transparent marketing system. To do this, data were collected in a survey questionnaires and an interview guided questionnaires employed for both permanent and intermediate members of the commodity exchange together with a deep projective interview. Properly implemented and regulated, commodity exchanges can contribute greatly to the achievement of a country's economic and developmental issues. Hence the overall objective of this study is to assess the challenges faced and growth prospects. The challenges associated with commodity marketing include the potential for market abuse, increased cost of trading, liquidity issues, quality problem and unfair competition among traders.

**Key words:** Commodity exchange, market opportunities, ECX

### INTRODUCTION

The Ethiopia commodity exchange (ECX) signifies a major advancement in the development of the Ethiopian agro-commodity market (Goggin, 2005) to promote the commercialization of major agricultural commodities. The ECX serves as a central marketplace where trade is funneled through a single, well-defined mechanism. The scope of the ECX is to promote the commercialization of major agricultural commodities, such as grains, pulses and coffee. A commodity exchange is a central marketplace where sellers and buyers meet to transact in an organized fashion, with certain clearly specified and transparent 'rules of the game'. In its wider sense, a

commodity exchange is any organized marketplace where trade is funneled through a single, well-defined mechanism (Eleni, 2005).

The market was designed in such a way as to build upon the pre-existing agro-commodity market. Agricultural commodities flow from surplus markets mainly confined in the western highland regions, through the central market to the deficit markets throughout the country (Addisalem, 2009). It shows that variations in agro-commodity prices are significantly correlated across these markets, suggesting a significant level of market integration (Dercon, 1995).

E-mail: [mamaa2854@gmail.com](mailto:mamaa2854@gmail.com). Tel: +251 (09) 10304885.

Authors agree that this article remain permanently open access under the terms of the [Creative Commons Attribution License 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

The ECX is expected to increase trust among buyers and sellers. Making use of modern information and communication technology, the ECX is also expected to increase the concentration of buyers and sellers over a single trading floor, improving effective market competition and reducing transaction costs.

The establishment of the ECX is expected to add an alternative floor for agro-commodity trade (Aning, 2007). However, there are widespread concerns about the actual commercial capacity of the Ethiopian farmers (Eleni, 2007). Ethiopia counts approximately 10 million rural households, producing grains, pulses and other agro-commodities mainly for their own subsistence (Eleni, 2006). Lack of capital and remoteness producers form the barrier that keeps farmers far away from the market, and therefore from the potential benefits of the ECX (Mukhebi, 1998).

The Ethiopian commodity exchange assures all commodity market players the security they need in the market through providing a secure and reliable End-to-End system for handling, grading, and storing commodities, matching offers and bids for commodity transactions, and a risk-free payment and goods delivery system to settle transactions, while serving all fairly and efficiently.

### Statement of the problem

During the last four decades Ethiopian governments have applied various methods to control commodity marketing system that vary from executing merchants who were accused for hoarding grain and importing of grain to stabilize market price. In spite of this straggle, till today the commodity market is not stable (Teshome, 2009; Parvez, 2009). The problems of commodity market can be three categories. The first category is the absence of integrated commodity marketing policy that addresses all the processes that involve transport, grading, storage and information facilities for the producer as well as for consumer (Meijerink, 2010). The second category is the absence of well-equipped institutional establishment which can provide all marketing services to all market actors. The third category is the absence of private and public partnership in the commodity market (UNCTAD, 2006).

As a result, Ethiopia decided to establish the Ethiopia Commodity Exchange market for its agricultural commodities and establish regulatory framework to transform the traditional market and ensuring food security for the country (IFPRI, 2007). The establishment of the new marketing system is thus a response to the necessity of instilling efficiency in the marketing of grains as is required on the production side (Teshome, 2009).

Providing appropriate market information has paramount role to sustain increased production and improve the livelihood of smallholder farmers. Hence, having

integrated marketing information system in a particular country plays decisive role in enhancing the performance of commodity exchange (Babcock, 1999). Even the government of Ethiopia takes various structural changes in the commodity market, still the marketing system needs substantial improvement and problematic in various perspectives.

The study attempts to specifically answer the following basic research questions:

1. What is the role of Commodity Exchange Market in a country like Ethiopia?
  2. What marketing potential ECX has to make its satisfied market participants?
  3. What are the challenges associated with commodity marketing through ECX?
- The objectives of the research are basically to identify and analyze the challenges and growth prospects associated with ECX and its contribution for the economic development of a nation. More Specifically the objectives include:
4. To assess the rationale for the establishment of a commodity exchange in Ethiopia.
  5. To inquire the functions of a commodity exchange to prosper economic growth.
  6. To review the perceptions of traders on ECX functioning.
  7. To identify the specific challenges that ECX faces in promoting commodity marketing.

### Organization of the study

Firstly the researchers try to demandingly identify the existing problem through reviewing, existing literature in related issues and then attached theoretical evidences with concepts and empirical studies. Then appropriate methods and methodologies were used accordingly. Finally data presentation, analysis, and interpretation were made together with summary, conclusions, and recommendations based on the necessary research tools.

### RESEARCH METHODOLOGY

The purpose of this research is identifying the prospects and challenges associated with commodity marketing in the context of Ethiopia. To this effect, descriptive research method was used. To secure dependable (Johnson, 2006) information both qualitative and quantitative methods were employed. There is a solo rule to use the one and reject the other; but prevailing trends favor the use of both designs in a single study (Aronson, 1990).

To select the sample respondents from the given population of registered traders with ECX, stratified sampling technique was used to draw two strata: full trading members (245) and limited members (391) as can be found on the website of ECX ([www.ecx.com.et](http://www.ecx.com.et)). Based on their numbers, samples were drawn using convenience sampling, by seeing their level of motivation and interest to take part in the study. This technique of sampling enables the

**Table 1.** Types of respondents.

Type of respondents	Frequency	Percentage
Permanent members of ECX	49	38.28
Intermediate members of ECX	79	61.72
Grand total	128	1.00

researcher to maintain the balance between the number of samples to be selected and size of each member's category. In this way, a total of 20% of each category of members (49 respondents from full members and around 79 respondents from limited members) were contacted to take part in the study as sample respondents.

In this study, both primary and secondary data sources were used. The primary data were collected through administered questionnaire on the top level marketing officials of ECX, and observations on the trading centers. The relevant secondary data were obtained from different literatures, journals, articles, and Ethiopia commodity exchange authority annual report forum paper, reports and documents of EDRI and national bank of Ethiopia regarding commodity exchange performance of Ethiopia at different time. The data gathering instruments employed in this study were pilot tested to make essential corrections and maintain the validity of the instruments. Accordingly, both instruments were revised based on suggestions and recommendations collected during pilot survey

For the purpose of obtaining primary data, structured questionnaires were used for administration with trader respondents. However, structured interviews were conducted with the marketing official of the ECX to shed light on the commodity marketing challenges and prospects. Interviewers' administered questionnaires were used to collect the intended information from the Head of the marketing departments in ECX. To do this, firstly questionnaires were prepared in English language and then translated into 'Amharic' in order to facilitate data collections.

The following are the reasons behind using structured questionnaires:

1. The presence of interviewer increases the response rate.
2. The interviewer can probe for more specific answer in the event the questionnaires are misunderstood or misinterpreted and explain the purpose of the study. The reliability of responses is increased through the completion of responses by explaining and checking.
3. The interview has control over the questioning and can ensure that the respondent does not answer out of the context.
4. The interviewer can standardize the interviewer environment by making certain that the interview is conducted in privacy and making an assurance to the respondents that information provided will be treated with confidentiality.
5. The interview can ensure that all questions are answered.

Non-participatory observations were conducted for couple of two weeks at the main market places in the commodity market center and the largest market centers in Addis Ababa under ECX namely, EHEL- BERENDA, in order to triangulate the information which has been obtained through interview about commodity exchange market challenges.

After the data were collected, researcher perused certain successive procedures. Firstly, quantitative data collected through structured questionnaires were analyzed by using various feature of Statistical Package for Social Science (SPSS) including frequency table, percentage, and graphs. And then the data collected through interview, and observations were analyzed qualitatively and by combing with compatible questioners.

## DISCUSSION AND MAJOR FINDING

### *Respondents demographic*

The total population comprised a total of 128 respondents, of which the majority (80.4%) of household traders were males, whereas, the remaining were females. Most of the traders were found in the age category between 33 and 48 years. Likewise 38.28 percent are from permanent members who trade only his or her own account and, 61.72 percent from intermediate members either on his or her own account or on behalf of clients. From this we can infer that the study considerably represents both permanent and intermediate members (Table 1). Many evidences showed that female traders have less access to improved technologies, credit and extension service on commercial trading (Eleni, 2007). In this study, some demographic parameters were collected to know the pattern and composition of the distribution in ECX traders.

The study of Eleni (2007) revealed that experiences in traders in the commodity market were started to develop in a positive and significant manner in adoption of advanced information technology for better performance as well as create a satisfied market traders (Table 2).

As can be observed from the table, the association between the performance of ECX and demographic factors tested with Chi-square test and there were no strong association observed between demographic factors and exercising practices of ECX performance to improving or deteriorating factors at less than 5% probability level.

### *Market performance*

Trading performance of ECX has been rising time to time in different dimensions. Among the perspectives in the volume of transaction, as well as market share and the overall trading performance for different types of commodities traded in the market that is 44 and 40% of the total transaction covered from trading in sesame and coffee, trading in pen bean covered 16 % of the total trading and trading in maize is almost insignificant; it accounts for 0.1 % from the total transaction. The cardinal reason for these conditions is that even if ECX assume to trade those commodity in there market, the production level and the consumption level of producer does not much so the small farmers simply produce those commodity in small farm level and consume by itself (Table 3).

The primary purpose of establishment of a Commodity Exchange in Ethiopia is there is both pushes and pulls factors (UNCTAD, 2007). Factors that potentially justify a Commodity Exchange in Ethiopia can be identified. Both Agricultural Development Leads to Industrialization (ADLI) and Rural Development Strategy of the country

**Table 2.** Adoption of advanced information technology for better performance as well as the creation of satisfied market traders

Independent variables		Level of satisfaction					$\chi^2$
		Satisfied		Dissatisfied			
		Total	No	%	No	%	
Sex	M	103	95	92.23	8	7.77	5.59
	F	25	19	76	6	24	
Age	>48	48	39	81.25	9	18.75	7.65
	>33	70	64	91.42	6	8.58	
	>18	10	6	60	4	40	
Family size	>4	38	31	81.58	7	18.42	0.037
	<4	90	74	82.22	16	17.78	
Educational Status	Primary School	22	18	81.82	4	18.18	0.18
	Secondary School	68	54	79.41	14	20.59	
	Graduated and above	38	29	76.35	9	23.65	

encourage surplus and market oriented agricultural production or commercialization of smallholder agriculture in order to achieve rapid and sustainable growth.

Another rationale for commodity exchange in Ethiopia is a gradual increase in large-scale commercial farmers in the grain sector. Finally, a critical factor is the positive steps taken by the government and the current political will to transform the agricultural marketing system of the country.

### **Marketing information system**

Marketing information is vital for the success of business and effective implementation of rules and regulations developed by the government. Marketing information most often used are traditional means of communication like word of mouth as well as rumours. Word of mouth typically traditional means is almost in appropriate source of marketing information in commodity market but it shows improvement together with change in technology somewhat used modern information technology other than conventional communication.

Concerning this issue, the interviewee, the marketing and international communication division head, indicated that there are different means of communication; mobile alerts broad band internet are used in order to provide the necessary information to the trader about commodity market mixes. The head added that network coverage for telephone service and appropriate internet connection are installed even if it required further improvements.

One of the objectives of information and communication division found in ECX is that to collect, organize reliable marketing information on commodity marketing and

disseminate the information in such a way that can help stakeholders. In this regard therefore respondents were asked if communication and information division provides them sufficient marketing information on commodities that are traded in ECX.

### **Initiatives to Create Satisfied Market Participant**

Ethiopia commodity exchange tries to provide and strive to supply appropriate and timely market information regarding the overall marketing mixes. In addition to this, ECX meets the producer and the consumers with a least cost manner and together with other similar functions, support members and clients to achieve their respective goal. From the data collected from the permanent as well as intermediate members including top level ECX officials, ECX has different schemes and programs to create satisfied clients and develop attitude of a facilitator rather than the competitor. Customer satisfaction is a combination of efforts done by ECX and other concerned parties inside and outside the organization. It is clearly understood that Ethiopia commodity exchange works together with different NGOs and strongly with banks and other financial institutions. Among other things are the following initiatives and practices to create satisfied customers; establishing spot price, spot price pulling, awareness creation, educate the clients, standardizing quality and warehouse and logistics. The centre always opens the door to customers and users by developing and visualizing the objective to build a world class institution. This is signalling Ethiopia's entry into a modern global market and to achieve the "New Ethiopia", embodying passion, innovation, professionalism, and

**Table 3.** ECX traded commodities volume, value, and market share performance in November 2010/11.

Commodity	Category	Volume in ton	Value in ETB	Average price	Market share	
				Per 100 Kg	volume	Value
Coffee	Washed	4,527.63	113,806,798.0	945.8	40%	61%
	Unwashed	11,676.72	571,757,066.6	832.4		
	Specialty	1,761.58	102,223,552.4	986.5		
	Local	4,866.56	113,489,490.9	396.4		
	Total	22,832.49	901,276,908.9	715.5		
Pen-bean	round white	7,336.10	56,142,553.55	765.2	16%	5%
	flat white	1,829.90	13,415,496.66	733.1		
	Total	9,166.00	69,558,050.21	758.8		
Sesame	Hummra	22,271.60	458,345,150.1	2,057	44%	34%
	Wollga	2,539.50	49,342,016.97	1,94 2.98		
	Total	24,811.10	507,687,167.8	2,046		
Maize	white maize	30	76,500.00	255	0.1%	0.0%
Ground total	56,839.9	1,478,598,625.0			100%	100%

Market performance of ECX, 2010/11.

**Table 4.** Trading for this last Ethiopian fiscal year has shown an increase of 128% over the 223,000 tones traded last year.

Years	2008/2009	2009/2010	2010/2011
Thousands of metric tone	138	222	508
Millions of US\$	293	558	1113
N <sub>o</sub> of clients	2407	3499	7914

excellence.

### Challenges and risks

As a marketing center and business transaction center, the commodity exchange sector is suspected to market challenges and risks.

1. Unnecessary Market Abuse
2. Increased Cost of Trading
3. Liquidity problems
4. Quality Problem
5. Unfair Competition among Traders

### Growth Opportunity

The spectacular futurity of ECX would strengthen and accelerate the development of commodity market in the country. Market Opportunities in their export started to persuade them. In connection with the Commodities

exchanged via the Ethiopian Commodities Exchange (ECX) exceeded 500,278 tons in 2012. Trading for this last Ethiopian fiscal year has shown an increase of 128% over the 223,000 tones traded last year (Table 4).

Additionally, the value of the Commodities exchange grew 179% to 18.7 billion from 6.7 billion last year. It shows there is a continuous growth and improvement in commodity marketing; it accounts for more than double in each Ethiopian fiscal year. Hence, the futurity of the ECX has a good potential to grow in the years to come. The same is true in the number of participants that is increasing (Figure 1).

The data show in regression equation of the line passing through them. The problem then is to find the line coming closest to all of its points, where,  $x = 0$ , represents the year 2009/2010 in all the subsequent simple regression models. Results of the t-test analysis also verify the existence of a significant difference between full member participant and limited membership participant at 1% level of significance with regard to the variable under consideration.

In the simplest case we have two data points and only

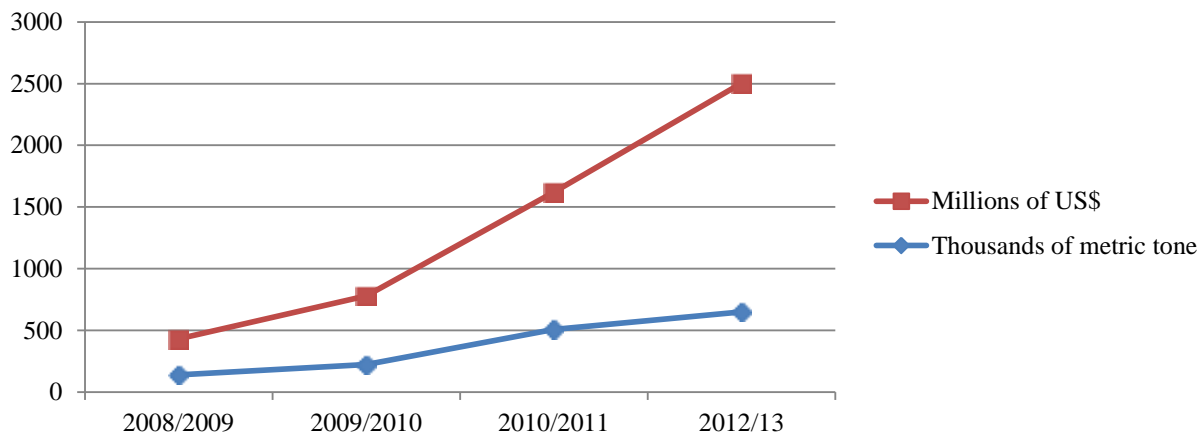


Figure 1. Growth trend from 2008-2013.

Table 5. The relationship between times of operation in ECX from 2008/09 to 2011/12 and the amount of commodities trades in the commodity market interims of tone.

	X	Y	X <sup>2</sup>	XY	Y <sup>2</sup>
	-1	1.38	1	-1.38	1.9044
	0	2.22	0	0	4.9284
	1	5.08	1	5.08	25.5025
Sum	0	8.68	2	3.7	32.3353
Mean	0	2.89			
Slope (B1)	1.85				
Intercept(B0)	2.89				

need to find the equation of the line passing through them. The problem then is to find the line coming closest to passing through all of the points. Where  $x=0$ , represents the year 2009/2010 in all the subsequent simple regression models. Simple Linear Regression, a linear function of one variable is a function of the form

$$y = f(x) = B1x + B0$$

Where  $B1x$  and  $B0$  are the parameters of the model. Its graph is a straight line;  $B1$  is the slope and  $B0$  is y intercept.

For every year through continuous operation in the commodity exchange market, the dependent variable, (y) (the amount of commodities trades in the commodity market in terms of metric tons.) increased by 1.85 units times per thousands of tone ((Table 5).

### Policy approaches

Several policy approaches have been used in the past in order to cope with falling and volatile commodity prices,

compensatory finance mechanisms, market-based risk management and mechanisms for commodity market stabilization have tried to deal with unstable prices.

1. Diversification Strategies
2. Supply Management Programs
3. Stabilization of Commodity Price
4. Storehouse Facilities

### Implication

Ethiopian Commodity Exchange failed to provide accurate and reliable market/marketing information at the right time and place to the traders. As a result, they are forced to sell their commodities without having adequate information related with price, demand, supply, and so forth. This factor, among other things, exposes traders to be confronted by formidable market a risk i.e. not to tap the market opportunities as it could and should be. To encapsulate, traders were less likely to obtain what they deserve from their trading practices.

Lack of experienced expertise in the area is one of the main problems of traders to trade their commodities by

having the deep analysis with respect to changes on the market structure, foreign exchange rates, demand, supply, competition, and so on. Hence, in most often, traders were doing their business in rule of thumb.

As overall analysis revealed that higher transaction cost, price fluctuation, difficulty of network access, lack of adequate warehouses that accommodate ECX participants request poor recording and management system of the warehouses in efficient and inadequate in store credit; expensive membership seat fee and exposed and non transparent quality grading and sampling system of the exchange, bias, corruption were found to be amongst the forefront bottlenecks/constraints to the development and success of ECX.

### **Recommendation**

1. Ethiopian Governments Should Check and review their policies, laws and regulations that create constraints for the commodity exchange. Develop effective monitoring system which can eradicate the malpractice of traders and other participants in the commodity exchange. Provide all the necessary facilities/equipment and trainings for smallholder to enhance the productivity and quality of their products. Empower domestic as well as international companies to invest in commodity exchanges as per the rules and regulation determined by the government.
2. The Authority should encourage and express its moral as well as political support for any such initiative promulgated by the commodity traders in the market by providing training and panel discussions. Co-organize, with interested groups (including from the private sector), regional and national market actors provide support to such events. Coordinate technical and academic papers on the practicalities of commodity exchange development in the Ethiopian context, including a set of “best practices” with respect to areas such as currency controls, intra-regional trade, ownership rights and taxation of commodity exchange transactions.
3. The Ethiopian Commodity Exchange Traders should develop the necessary skills to understand commodity exchange operations, and build up the institutional capacity to engage in such operations. Support a public relations and awareness raising commodity exchange operations and closely work with ECX.
4. Incorporate proper functioning of a commodity exchange, it is important to design appropriate and suitable economic policy objectives and communicate its role to the economy to the trading participants in ECX.
5. Provide an interface within the government and those commodity exchange stakeholders interested in establishing a commodity exchange can interact and vice versa.
6. Empower domestic as well as international companies to invest in commodity exchanges as per the rules and regulation determined by the government.

7. Co-organize with interested groups (including from the private sector), regional and national workshops and conferences on commodity exchange issues, or provide support to such events.

8. Sponsor and coordinate technical and academic papers on the practicalities of commodity exchange development in the Ethiopian context, including a set of “best practices” and guidelines with respect to areas such as currency controls, intra-regional trade, ownership rights and taxation of commodity exchange transactions.

9. Provide necessary support and instruction, to ensure an ongoing communication between the exchange(s) and the commodity traders and its member traders.

### **CONFLICT OF INTERESTS**

The author have not declared any conflict of interests.

### **REFERENCES**

- Addisalem B (2009) Promoting Agricultural Marketing through a Commodity Exchange Market Paper for Presentation at a Symposium Organized by Tigray Development Association (TDA) and Mekelle University in connection with TDA's 20 th Anniversary Celebration.
- Aning A (2007) Trade and Development Implications of Commodity Exchanges (Part I) [http://unctad.org/sections/wcmu/docs/c1em33p07\\_en.pdf](http://unctad.org/sections/wcmu/docs/c1em33p07_en.pdf)
- Babcock B (1999) Commodity Futures Trading for Beginners, Retrieved July 03, 2007, from Reality based Trading Company.
- Dercon S (1995) “On market integration and liberalization: Method and application to Ethiopia.”
- ECX (2008) Visit Report to China and India, and the USA (2009), Various Training Materials Prepared by ECEA Ethiopia Commodity Exchange ([www.ecx.com.et](http://www.ecx.com.et))
- ECX monthly Newspaper Volume 1 | Issue 3 | February, 2011.
- Eleni G (2007). The Ethiopian Commodity Exchange (ECEX): Making the market work for all. Expert Meeting on the Trade and Development Implications of Financial Services and Commodity Exchanges (Part I.)
- Eleni G (2006). Getting markets right: The promise of emerging commodity exchanges, with reference to Ethiopia. The World's Commodities Exchanges Burgen stock: UNCTD and Swiss Futures and Options Association.
- IFPRI (2007). Byerlee et al., Discussion Paper: Policies to Promote Cereal Intensification in Ethiopia: A Review of Evidence and Experience.
- Meijerink G, Alemu D, Mheen-Sluijer J, Wijnands J (2010). Institutional Innovation in African Markets: Can Commodity Exchanges Address Sustainability Issues.
- Ministry of Economic Development (MoFED) (2009). Successful Performance in the Agricultural Sector, Ethiopia Today: Bi-Monthly Magazine, January. Addis Ababa, Ethiopia.
- Mukhebi W (1998). The Challenges and Opportunities of a Young Commodity Exchange in an Emerging Market Economy: The Experience of the Kenya Agriculture Commodity Exchange, a Paper Prepared for the First Summit of Partners for Development Organized by the UNCTAD.
- Parvez A (2009). A Report on “the Prospect of Commodity Exchange for Bangladesh, an Internship Report Presented in Partial Fulfillment of the Requirements for the Masters of Business Administration, Bangladesh.