



**ST. MARY'S UNIVERSITY  
SCHOOL OF GRADUATE STUDIES  
DEPARTMENT OF BUSINESS ADMINISTRATION**

**AN ASSESSMENT ON MARKET INTEGRITY OF ETHIOPIAN  
COMMODITY EXCHANGE**

**BY**

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**JUNE 2019  
ADDIS ABABA**

**AN ASSESSMENT ON MARKET INTEGRITY OF ETHIOPIAN COMMODITY  
EXCHANGE**

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**ATHESIS SUBMITTED IN PARTIAL FULFILMENT OF THE  
REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS  
ADMINISTRATION (MBA)**

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## STATEMENT OF DECLARATION

I, the undersigned, declare that this thesis is my original work. All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

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## **LIST OF ABBREVIATIONS/ ACRONYMS**

ACE: - Agriculture Commodity Exchange for Africa  
ADLI: - Agricultural Development Lead Industrialization  
ASCE: - Abuja Securities and Commodity Exchange  
BCC: - Business Conduct Committee  
ECX: - Ethiopia Commodity Exchange  
EAGC: - Eastern Africa Grain Council  
ETB: - Ethiopian Birr  
IOSCO: - International Organization of Securities Commissions  
IVR: - Interactive Voice Recording  
KACE: - Kenya Agriculture Commodity Exchange  
MT: - Metric Ton  
SAFEX: - South African Futures Exchange  
SMS: - Short Message Service  
SPSS: - Statistical Package for Social Studies  
SRO: - Self-Regulatory Organ  
UCE: - Uganda Commodity Exchange  
UNCTAD: - United Nations Conference on Trade and Development  
USAID: - United State Agency of International Development

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## ABSTRACT

*A commodity exchange operates with a certain set of rules or conventions that are widely known. These rules pertain to four key dimensions of the market: the product, its price determination, the actors, and the contractual relations that bind them. These rules and modalities together create much needed integrity and trust in the system. The main objective of the study was to assess the market integrity of Ethiopian Commodity Exchange. This study used descriptive type of research design and both quantitative and qualitative data collection approaches. Both primary and secondary sources of data were explored. The target population of the study was for the last five years from 2014 GC up to 2018 GC any active participant of Ethiopian commodity exchange member. In this study, the researcher used both semi structured questionnaire and unstructured interview. Descriptive statistics was used to analyze the data. The study found that Exchange's price discovery mechanism is somewhat in good condition but the exchange must work hard to create transparent and competitive price discovery mechanism. The study also found there is market manipulation and trade misconduct by members who have good knowledge of all the trading rules & regulations and types of manipulation. In contrary, a lack of clear & fair rules and regulation, a lack to monitor market abuse & manipulative trading, market behaviors of member toward improper trading practice, the problem of adequate and skilled manpower and limitation of required technological infrastructure were found to be some of the challenges of ECX to ensure its market integrity. Based on the findings, the study recommends considering using different countries reference market information for all types of commodity traded, significant emphasis on the development of regulatory capacity, deploy an integrated market surveillance mechanism and work together with supportive institution.*

**Keywords:** *Ethiopia Commodity Exchange (ECX), market integrity, ECX members, and market manipulation*

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

Commodity exchanges are typically associated with efficient and sophisticated markets, providing valuable benefits such as price discovery, publicly available market information, contracts for minimizing price risks, low transaction costs of exchange, and insurance against potential opportunistic behavior of trading partners (T.S. Jayne, 2014)

The Ethiopia Commodity Exchange (ECX) is a new initiative for Ethiopia and the first of its kind in Africa. The ECX was formed in 2008 to address the problems of market access and market infrastructure primarily for grain farmers, and subsequently became the sole body responsible for managing trade in coffee.

Commodity exchange is simply a central place where sellers and buyers meet to transact in an organized fashion, with certain clearly specified and transparent “rules of the game”. A commodity exchange operates with a certain set of rules or conventions that are widely known. These rules pertain to four key dimensions of the market: the product, its price determination, the actors, and the contractual relations that bind them (Gabre-Madhin, 2005). These rules and modalities together create much needed integrity and trust in the system.

To begin, goods traded on an exchange must be standardized according to known standards of quality and quantity. The grading and certification of grade must be done by licensed inspectors that are qualified and regulated. Grading can be done through a laboratory based at the exchange on a sample basis or by other parties, such as the state or private actors. The certification must be considered by all to be fair and neutral. Thus, whether the grading is done by the exchange or not, a key function of the exchange is to ensure that goods are brought to the market properly graded.

Second, an exchange operates a given system of price bidding that is aimed at publicly displaying buy and sell offers in a transparent and low-cost manner.

Third, in order to ensure that the rules are followed, exchanges operate with membership based trading, where membership is based on the ability to comply with the rules of the exchange and

to meet certain standards. This ensures that members have a stake in the performance of the market and thus uphold its trust and integrity.

Fourth, the exchange's regulations and directives usually make it mandatory for members to make use of standard contracts prepared by the exchange to which they belong. Thus, members are required to strictly adhere to the terms and conditions laid down in the contracts, to keep appropriate records of their transactions; and to submit to be bound by the disciplinary rules of the exchange. (Gabre-Madhin, 2005)

As the findings of Tollens, revealed that market information and commodity exchanges can be powerful instruments to inform participants about market conditions and prices, to find willing buyers, to empower them by making the transactions more equal and fair, to inform them about the optimal timing of buying and selling, to induce them to store optimally and to plan ahead, making better informed optimal production and marketing decisions. (Tollens EF, 2006)

Market integrity is a cornerstone of fair and efficient markets, ensuring that participants enjoy equal access to markets, that price discovery and trading practices are fair, and that high standards of corporate governance are met. The research adopted a definition of market integrity that includes monitoring for market abuse and manipulative trading, while fostering nondiscriminatory market access, price discovering/transparency, strong disclosure standards, and member and client protection. Market surveillance play a pivotal role in supporting integrity: through overseeing and supervising market participants, reporting data, and enforcing rules as defined by exchange regulation. (Oliver Wyman, 2018)

Therefore, the main purpose of this study is to identify how Ethiopian commodity exchange ensures market integrity with respect to ensure fair price discovering and compliance of its members.

## **1.2 Statement of the Problem**

The development of the agricultural market in Ethiopia is based on old traditional methods. It is characterized by insufficient market information, unstable price, poor quality, lack of trust among trading partners, and uncoordinated markets. (Gabre-Madhin, 2005)

ECX currently operates as a spot exchange. While the country's government appears wary about permitting the introduction of futures contracts, the exchange at some time will need to introduce

futures in order to survive, in particular when traders are no longer obliged to use the market. (African Development Bank, 2013)

According to ECX proclamation, the exchange is established to accomplish a purpose to carry out market surveillance to ensure the integrity of the member and of the market. Maintaining market efficiency and integrity are central objectives of exchanges and critical for its future competitiveness.

Market integrity refers to the ability of actors to transact in a fair and informed market where prices reflect information. According to market surveillance operational manuals of ECX, the exchange undertaken day to day activity of detect manipulative and abusive practices which hurts market integrity. Marketing integrity system in ECX needs substantial improvement and problematic in various perspectives. However there is no previous study made on integrity of the exchange market. Therefore, this study attempts to fill this gap and contributes to the literature on the commodity exchange in Ethiopia.

### **1.3 Research Questions**

The study tried to give answers to the following research questions.

#### **Basic research questions:**

1. To what extent does the Ethiopian commodity exchange ensure the market integrity?
2. How fair is price discovering mechanism at ECX?
3. To what extent is ECX ensuring compliance of its members?
4. What are the challenges prevalent to ensure the market integrity in ECX?

### **1.4 Objectives of the Study**

#### **1.4.1 General Objective**

The overall objective of the study is to assess the extent of market integrity at the Ethiopian commodity exchange.

#### **1.4.2. Specific Objectives**

In relation to the above general objective of the study, the researcher had identified the following specific objectives:

- To examine the price discovering mechanism of Ethiopian Commodity Exchange

- To assess compliance of Ethiopian Commodity Exchange members.
- To investigate market manipulation trend of Ethiopian commodity exchange
- To identify the challenges to ensure the market integrity of Ethiopian Commodity Exchange

### **1.5 Significance of the Study**

One of core purposes of Ethiopian commodity exchange is ensuring the integrity of the market and the member. This study focuses on assessing the level of market integrity of Ethiopian commodity exchange. Accordingly, the study is going to assess the price discovering mechanism, compliance of ECX members, challenges to ensure the market integrity of Ethiopian commodity exchange. The findings of this study will be useful to help policy makers and Ethiopian commodity exchange to make clued-up decisions regarding their service deliverance mechanisms for better integration. And also the study will contribute to identify the root of the problem, to ensure a level playing field for all participants and the literature of the country on the subject. Moreover, the study will serve interested researchers to carry out more extensive studies for further research work.

### **1.6 Scope of the Study**

The study is delimited only on market integrity issues of the exchange particularly on price discovering mechanism, compliance of the member, trend of market manipulation and challenges to ensure the integrity of Ethiopian commodity exchange. Considering the manageability of data, budget, time and resources availability, the study is limited mainly to Ethiopian commodity exchange head office and Addis Ababa trading center. Lastly, In order to describe the current practice and challenges of market integrity of the Ethiopian commodity exchange the researcher has used the most recent five years data from the fiscal year 2014 GC up to 2018 GC.

### **1.7 Limitation of the Study**

The study could not cover every aspect of the exchange with regards to the practice and challenges of the market integrity throughout all warehouses and regional trading centers across the country, and respondents may not be reflective of the entire members and client in Ethiopia. It was also difficult to gather sufficient information for the study due to the limited number of

related prior research works regarding the commodity exchanges market integrity practices and challenges in Ethiopian context. However, none of these affected the quality of the research because the study employed appropriate research methodologies in order to achieve its main objective and to address basic research questions.

### **1.8 Organization of the Paper**

The research organized under five chapters.

Chapter one deal with the problem and its approach which includes background of the study, statement of the problem, research objectives, significance of the study, and scope of the study, limitation of the study and organization of the research.

Chapter two provides a detail review of relevant literature to connect to the research questions.

Chapter three presents the methodological concerns that used in conducting this research and provides a justification for each step taken.

Chapter four presents the summarized results/findings of this study and interpret and/or discuss the findings to address the research questions and objectives.

Chapter five presents the conclusion drawn from the findings, the recommendations made to address the problems stated in chapter one. All the reference materials used in the study are listed under bibliography.

### **1.9 Definition of key Concepts and Terms**

**Commodity Exchange** is an exchange where various commodities and derivatives products are traded. Most commodity markets across the world trade in agricultural products and other raw materials (like wheat, barley, sugar, maize, cotton, cocoa, coffee, milk products, pork bellies, oil, metals, etc.) and contracts based on them. These contracts can include spot prices, forwards, futures and options on futures (UNCTAD report, 2009)

**Membership Seat** is a permanent and transferable right to trade on the Exchange. Members can be any individual, company, public enterprise, or cooperative that meets the membership requirements ([www.ecx.com.et](http://www.ecx.com.et))



**Clearing house Receipt** a document certifying possession of a commodity in a licensed warehouse that is recognized for delivery purposes by a commodity futures exchange (Gideon Onumah, 2010).

**Spot contracts** are contracts to buy and sell the physical commodity resulting in immediate physical delivery (UNCTAD report, 2009).

**Forward contract** is a legally binding agreement between two parties calling for the sale of an asset or product in the future at a price agreed upon today.

**Market integrity** is the extent to which a market operates in a manner that is, and is perceived to be, fair and orderly and where effective rules are in place and enforced by regulators so that confidence and participation in the market is fostered. (Definitions according to IOSCO)

**Market efficiency** refers to the ability of market participants to transact business easily and at a price that reflects all available market information. Factors considered when determining if a market is efficient include liquidity, price discovery and transparency. (Definitions according to IOSCO)

## CHAPTER TWO

### REVIEW OF RELATED LITERATURE

#### 2.1 Agricultural Commodity Exchanges

A commodity exchange is a market where commodity-linked contracts are traded on the basis of rules and procedures determined by the exchange. Well-functioning commodity exchanges require several conditions: large trading volumes per transaction, a huge amount of liquidity in the market, grades and standards of quality, storage facilities, a reliable banking service, and a strong legal framework to enforce commercial laws and contracts. The most typical contracts traded include spot prices, forwards, futures and options. While national Agricultural Commodity Exchanges have been established in Ethiopia, Kenya, Malawi, Rwanda, Uganda, Zambia and Zimbabwe, several initiatives for regional Agricultural Commodity Exchanges exist. Two exchanges have reached reasonable volumes, the South African Futures Exchange (SAFEX) and the ECX trading, respectively over 210 MT (mostly grains) and almost 600,000 MC (mostly coffee) in 2012. However, a very mixed picture of Agricultural Commodity Exchanges in ESA can be painted (EAGC, 2015). Commodity exchanges can reduce the costs and risks of transacting. They can provide valuable public information such as prices and volumes of trade. In many indirect ways, they can encourage the financial sector to invest in agricultural value chain development, improve farmers’ access to markets, reduce marketing margins, and encourage agricultural productivity growth (T.S. Jayne, 2014).

#### 2.2 Empirical Literature Review

##### 2.2.1 Commodity Exchanges in Africa

In the world several commodity exchanges have been engaged at different models, but it is a recent phenomenon that the formation of commodity exchanges in the African countries.

Agricultural Commodity Exchanges in terms of regions

<b>East Africa</b>	<b>Southern Africa</b>	<b>Western Africa</b>
a) East African Grain Council	a) SAPEX Agricultural	a) Abuja Securities
b) The Kenya Agriculture Commodity Exchange (KACE)	Exchange (part of Johannesburg Stock Exchange)	and Commodity Exchange (ASCE)

c) Uganda Commodity Exchange (UCE) d) Ethiopia Commodity Exchange (ECX) e) Agriculture Commodity Exchange for Africa (ACE) Zambia	b) Zimbabwean Agricultural Commodity Exchange	
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Table 2.1: Agricultural Commodity Exchanges in Africa (Source: CMA, 2009)

Ethiopia Commodity Exchange (ECX) is one of the agricultural exchange markets available in developing countries of Africa. Currently, Ethiopia is following a development policy of Agricultural Development Lead Industrialization (ADLI). This policy of the government encourages both farmers and private investors to produce market oriented commodities so as to have industrial development in the long run (Paul I, 2011).

### 2.2.2 Commodity Exchange in the Developing Countries

A commodity exchange is a market in which multiple buyers and sellers trade commodity-linked contracts on the basis of rules and procedures laid down by the exchange. In developed countries, and in an increasing number of developing countries, such exchanges typically act as a platform for trade in futures contracts, or for standardized contracts for future delivery. In other parts of the developing world, a commodity exchange may act in a broader range of ways, in order to stimulate trade in the commodity sector. This may be through the use of instruments other than futures, such as the cash or “spot” trade for immediate delivery, forward contracts on the basis of warehouse receipts, or the trade of farmers’ repurchase agreements for financing (known as “repos”). Alternatively, it may be through focusing on facilitative activities, rather than on the trade itself, as is the case in Turkey, where exchanges have served as centers for registering transactions for tax purposes. (UNCTAD, 2009)

### 2.3 Background of Ethiopian commodity exchange

The Ethiopia Commodity Exchange was established in 2008 to revolutionize Ethiopian agriculture and transform the economy through a dynamic, efficient and transparent marketing system that serves all and essentially turns commodity into assets. And properly implemented and regulated, commodity exchanges can contribute greatly to the achievement of a country’s

economic and developmental goals and strengthen the bargaining power of weak groups such as small farmers (The case of ECX, 2011).

After its establishment, the ECX started trading maize and wheat with little success. It then switched to coffee, helped by a decision from the government to replace the traditional coffee auctions by ECX. Starting with one coffee warehouse in 2008, ECX expanded its warehousing presence, to 57 in early 2013. Further, it has reached around 65 warehouses in the year 2014. ECX has become Africa's largest exchange after South Africa's SAFEX (EAG, 2015). The ECX's design is unique in that it integrates the entire eco-system related to the market, spanning the central trading system, warehouse delivery centers, product grade certification, clearing banks, an arbitration tribunal, a market information system linking rural sites, remote electronic trading centers, and a secure data center to manage membership and market information. An over-arching legal framework and a government regulatory agency ensure the viability of this entire integrated environment. Since 2008, the ECX has increased the number of agricultural commodities traded at the exchange from only one to seven. Currently the ECX trades coffee, sesame, pea beans, maize, wheat, and green mung beans, and red kidney beans are in the pipeline. Until June 2015 ECX has been trading through an open outcry trading platform. In order to increase trade efficiency, transparency and accessibility, the ECX introduced its modern eTRADE Platform. To successfully launch this initiative the exchange has trained and certified over 514 online traders. (The case of ECX, 2011)

#### **2.4 The purpose of commodity exchanges**

The purpose of a commodity exchange is to provide an organized marketplace in which members can freely buy and sell various commodities in which they have an interest/sake. The exchange itself does not operate for profit. It just provides the facilities and ground rules for its members to trade in commodity futures and spots and for non-members also to trade by dealing through a member broker and paying a brokerage commission.

The purposes served by a commodities exchange depend in part on the nature of the specific contracts that are traded. Just by centralizing trade in a commodity an exchange can facilitate title transfer, price discovery and market transparency. Transaction costs are decreased because coordination through a centralized exchange can decrease costs associated with identifying the market outlets, physically inspecting of the product quality, and finding purchaser or sellers.

By decreasing transactions costs and enhancing information flows an exchange can improve returns to market agents while reducing short term price variability and spatial price dispersion. Such contracts command little capacity to address inter annual price uncertainty.

More sophisticated contracts allowing exchange in futures can enable further risk management, but such contracts require a well-developed exchange and cannot address maintain spot prices in bounds that might be desired.

Trading contracts for future delivery, commodity exchanges can assist strengthen market liquidity, increase profit, improve price discovery and facilitate price risk management. According to Rashid et al, an exchange can improve liquidity because a futures contract is a fungible financial instrument which buyers and sellers are willing to hold and exchange. While futures contracts efficiently remove price level risk, they do not eliminate the risk. Instead they replace price risk with basis risk, where the basis is the difference between the spot market and futures market prices. Unexpected shifts in the basis can result in losses or gains, and the degree of basis risk can highly influence the effectiveness of the exchange in risk management.

As explained by Rashid et al, providing the services of a commodity exchange is expensive. The costs include physical investments in warehousing, operational space and communications as well as operational costs involved in screening participants and enforcing contracts. Moreover, an exchange typically must provide clearinghouse services which allow buying and selling the commodities traded at the stated prices with limited fear of default for participants.

These services disclose the exchange to both working capital costs and risk. For an exchange to succeed its services must be adequately valued by users that they are willing to pay fees to cover these costs.

According to Rashid et al, market failures, including inadequacies in physical infrastructure, asymmetry in information, inadequate supporting legal and financial institutions can all impede the formation of futures exchanges. (Rashid *et al*, 2010)

## **2.5 A Brief Overview of the Ethiopia Commodity Exchange**

The Ethiopian Commodity Exchange is designed to be a marketplace where buyers and sellers meet to trade, assured of quality, quantity, delivery and payment. It will control a system of daily

clearing and settling of contracts. It will improve market efficiency by operating a trading system where buyers and sellers use standardized contracts.

Market transparency will be accomplished by distributing market information in real time to all market players. (ECX directives, 2008)

The Ethiopia Commodity Exchange (the “Exchange”) is established by the Ethiopia Commodity Exchange Proclamation No.550/2007 as one of the basic ingredients to transform the country’s agriculture to market oriented production system.

As per its establishing proclamation, the Exchange is created to accomplish the following purposes:

1. To create an efficient, transparent, and orderly marketing system that serves the needs of sellers, buyers and intermediaries, and that promotes increased market participation of Ethiopian small scale producers;
2. To give a centralized trading mechanism in which offers to sell and bids to buy are coordinated through a physical trading floor with open outcry bidding or an electronic order matching system or both;
3. To provide automated back office operations to record, monitor, and publicly disseminate information on Exchange transactions;
4. To offer standardized grade-specific contracts as the basis of Exchange trading;
5. To perform trading on the basis of product grade certificates and guaranteed warehouse receipts;
6. To clear and settle all transactions performed on the Exchange to minimize default risk;
7. To provide/render/ a mechanism for dispute resolution through arbitration to the members
8. To provide real timely market information to the public;
9. To perform market surveillance to ensure the integrity of the members and of the market; and
10. To prevent the occurrence of contingent risk to the market through implementing risk management by employing proper management mechanism.

11. To effectively perform the above purposes, the Exchange is established as a demutualized corporate entity with clear separation of ownership, membership and management.

Thus, although the Exchange is wholly owned by state of Ethiopia, it has an autonomous and professional management that shall be neither related to the ownership of the Exchange by government nor to the Membership of the Exchange.

The Exchange has members that have been recognized as Exchange Actors by the Ethiopia Commodity Exchange Authority and who have the right to trade only for their own account or either for their own account or the account of clients. At a sale of membership seat in ECX, any person who fulfills necessary requirements set under the Rules of the Exchange and other pertinent laws can acquire membership of the Exchange that shall, among other things, confer a right to trade at the Exchange.

The Ethiopia commodity exchange has a Board of Directors, Chief Executive Officer, who shall, among other things, organize, direct and administer the Exchange, and the necessary officers and staff.

The composition of Board of Directors, which oversees the management of the Exchange, is designed to keep a healthy balance of owner and member interests. Thus, it is composed of 11 members, of whom 6, including the chairperson, are representatives nominated by the owner and 5 are elected by the members of the Exchange.

The Exchange has created a marketplace, where sellers and buyers come together to trade, assured of quality, quantity, delivery and payment, by implementing its establishing proclamation, the rules of the Exchange and other pertinent laws that governs its day to day operations. (ECX directives, 2008)

## **2.6 Functions and Possible Benefits of Commodity Exchange**

The purpose of a commodity exchange is to provide an organized marketplace in which members can freely buy and sell various commodities in which they have an interest.

The exchange itself does not operate for profit. It merely provides the facilities and ground rules for its members to trade in commodity futures and spots and for non-members also to trade by dealing through a member broker and paying a brokerage commission (Lerner, 2000).

In addition commodity exchange reduces transaction costs by offering services at lower cost than that which participants in the commodity sectors would incur if they were acting outside an institutional framework. These can include – but are not limited to – the costs associated with finding a suitable buyer or seller, negotiating the terms and conditions of a contract, securing finance to fund the transaction, managing credit, cash and product transfers, and arbitrating disputes between contractual counterparties. Therefore, by reducing the costs incurred by the parties to a potential transaction, a commodity exchange can stimulate trade. Moreover, properly functioning commodity exchanges can promote more efficient production, storage, marketing and agro-processing operations, and improved overall agriculture sector performance (Newman S, 2008 and Gideon O.E, 2003) describes commodity exchanges can be an important part of interventions to address the identified constraints because of the following economic benefits:

- a) Exchange trading generally saves time and cost of transacting as well as reduces risks faced by counterparties, who are assured of a fair deal (arising from competitive trading), guaranteed payment for what is sold and delivery of what is paid for.
- b) The system creates a means by which sellers and buyers are brought together to trade on the basis of reliable information on the quality, quantity and location of commodities to be traded. This reduces the cost of sourcing produce for traders and processors, while lowering the cost of accessing markets for farmers, especially for premium quality produce. It avoids the high-cost and time-intensive process of physical sampling of goods before purchase, which is predominant in the informal agricultural trade in the country.
- c) This is because the quality and quantity of the traded product is assured, thus making sight-unseen trade possible, implying sellers can sell to buyers in a wider geographical area than their immediate location.
- d) Guarantee of delivery by the exchange, based on the guarantee by warehouse operators, reduces the risk of non-performance of trade contracts. Sellers are also assured of payment for the commodity sold, with systems being in place to minimize the risk of default by buyers, especially when the market moves against them. The greater security in trade transactions provided, leads to significantly lower cost (including time lost) associated with contract enforcement, especially where litigation is time consuming and expensive.



- e) Increased availability of inventory finance is also likely to boost non-traditional exports by reducing uncertainty regarding contract performance faced by importers. This will be through enabling exporters to stockpile using inventory finance, thereby assuring more regular supply and to guarantee delivery on schedule of commodities of known quality and quantity.
- f) Exchange trading improves collection and dissemination of market information to all players. Prices on the exchange, discovered through a transparent process, are widely disseminated. Brokers, who are expected to facilitate trade and provide market advice to their clients, receive and analyses price-sensitive market information, thereby assisting buyers and sellers in making trade decisions.
- g) The exchange represents a transparent and often reliable means by which lenders can liquidate collateralized commodities in the event of default by the borrower. Therefore it facilitates access to commodity finance.
- h) As the exchange matures from a spot market into offering various risk management instruments, including futures and options contracts, lenders will use such instruments to hedge price risks. By so doing, they will reduce credit risks, leading to lower cost of borrowing. The formal market in commodities will also attract investors intending to profit from price movements. Their involvement will bring added liquidity to the market to the benefit of all players.

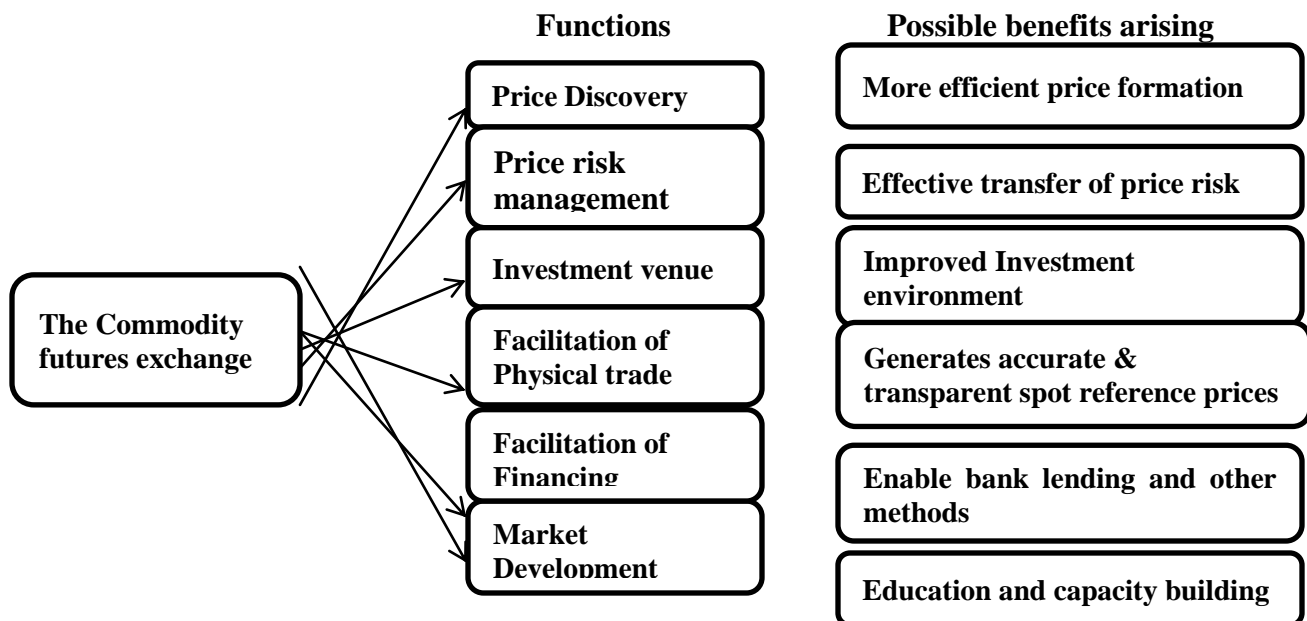


Figure 2.1: Exchange functions and benefits (source: UNCTAD, 2009)

## **2.7 How Does an Exchange Work?**

Most exchanges, even when they have a virtual or electronic trading system, operate in a physical place, with an exchange “floor” on which trading occurs. The exchange floor is typically organized by commodity. A common misperception is that a commodity exchange determines or establishes the prices of traded commodities. This is incorrect.

Prices are determined solely by supply and demand conditions. If there are more buyers than sellers, prices will be forced up. If there are more sellers than buyers, prices will be forced down. Thus, buy and sell orders, which are channeled to the exchange floor for execution, are what actually determine prices. The orders to buy or sell are done by public outcry, rather than by private negotiation, and the prices at which transactions are made are recorded and released publicly by the exchange as soon as possible, generating market transparency. In comparison to an auction where the emphasis is on selling, trading on a commodity exchange is like a continuous two-way auction, in which bids to buy are going on simultaneously with offers to sell. This is possible because the graded product needs no description with a standardized contract and because there is sufficient volume of both buy and sell orders. The exchange itself does not operate for profit, but merely provide an organized market place for buyers and sellers.

Clearly, the key to a successful exchange is to bring about the needed highest possible concentration of buyers and sellers into a single market mechanism in an efficient, low cost, and manner. To do so requires that the market operate with certain basic rules and with certain types of actors. These characteristics or operating modalities are precisely what distinguish what is known as a commodity exchange from a typical central wholesale or terminal market (Gebremedhin, E. Z.and Goggin I.2005)

### **2.7.1 A System That Creates Integrity and Trust**

A commodity exchange operates with a certain set of rules or conventions that are widely known. These rules pertain to four key dimensions of the market: the product, its price determination, the actors, and the contractual relations that bind them. These rules and modalities together create much needed integrity and trust in the system. To begin, goods traded on an exchange must be standardized according to known standards of quality and quantity. The grading and certification of grade must be done by licensed inspectors that are qualified and regulated. Grading can be done through a laboratory based at the exchange on a sample basis or by

other parties, such as the state or private actors. What is critical is that the product grades are widely accepted by the market and are developed with the participation of all market actors, including farmers, traders, processors, and consumers. The certification must be considered by all to be fair and neutral. Thus, whether the grading is done by the exchange or not, a key function of the exchange is to ensure that goods are brought to the market properly graded.

Second, an exchange operates a given system of price bidding that is aimed at publicly displaying buy and sell offers in a transparent and low-cost manner. Some exchanges operate on the basis of an “open outcry” system in which market actors in on the exchange floor cry out their bids and orders in a public fashion. Alternatively, an exchange may operate with an actual or a virtual “bulletin board” on which bids and offers are posted publicly. The key is that the price bidding is done openly rather than privately.

Third, in order to ensure that the rules are followed, exchanges operate with membership based trading, where membership is based on the ability to comply with the rules of the exchange and to meet certain standards. Moreover, since chaos would quickly result if membership were continuously open to increasing numbers, membership in an exchange is fixed. In addition to an annual fee, the actual seat or membership on an exchange floor is paid for with an initial price, much like a share, and can be bought or sold on the market. This ensures that members have a stake in the performance of the market and thus uphold its trust and integrity.

How then can large numbers of buyers and sellers be integrated into the market if the members who trade on the exchange are limited? Brokers are the key set of actors on an exchange who, as members of the exchange, trade on behalf of an unlimited number of buyer and seller clients. The function of brokers, whose duty it is to advise their clients, whether buying or selling, as to the best market opportunities and when and where these are likely to occur, provides significant empowerment to market participants. However, because of their central role, brokers must be specifically licensed and inspected in their function. The integrity of brokers is at the core of the integrity of the exchange itself.

Exchanges are essentially self-regulatory systems which prescribe rules and codes of ethics to which all market actors that are registered with them need to strictly adhere to (Ethiopian Development Research Institute, 2005)

### **2.7.2 A System That Generates Market Information**

A core attribute of an exchange, implied within the four dimensions noted above, is that it enhances market transparency through generating and disseminating information. Through its own functioning, the exchange creates market information about the underlying supply and demand conditions in the economy.

Thus, contrary to popular perception, a commodity exchange does not require an external market information system as a pre-requisite to its proper functioning. An exchange becomes the market information system as it undertakes its function of price discovery based on the public posting of buy and sell orders. When the volumes of trade on the exchange are sufficiently large to justify that price discovery according to true market fundamentals is occurring, then the dissemination of that information of market prices provides a great service to the market, and the wider economy. This fact alone is a compelling reason to justify an exchange. (Eleni Z. Gabre-Madhin and Ian Goggin, 2005)

### **2.7.3 A System Linked To Warehouse Receipts**

By storing their goods in a reliable warehouse, farmers can use the warehouse receipt that is issued as loan collateral and thus access finance without selling their goods. A common misperception is that a warehouse receipts system is primarily a price stabilization system. First and foremost, it is a system of financing, which is its primary purpose.

However, it can have positive impacts on price stability by encouraging storage just after harvest, but this is not guaranteed. However, while the receipt is an important mechanism for farmers to reduce their cash constraint, it must be considered that it also entails speculative activity by farmers, with high risk implications, because farmers who are receipt holders are thus taking a position in the market with some judgment about the future direction of prices. This factor alone has led to the demise of many inventory credit schemes over the past few years across sub-Saharan Africa. To overcome this risk to farmers, warehouse receipts can be made transferable, so that farmers can transfer the speculative risk through sale of the receipt. Thus, through linking a receipt program to a commodity exchange, receipts can be traded on the exchange and enable the transfer of risk in an organized fashion. The chances of success for a warehouse receipts system are considerably higher if it is linked to a functioning exchange on which receipts can be traded.

The viability of a warehouse receipts system depends on the extent to which there is discipline and trust in the warehouse, like the commodity exchange, integrity is key. In addition, the viability depends on the economies of scale to save costs of oversight and administration, the reduction of costs of financing that are passed on to farmers, finding the correct balance of regulatory oversight by state, and the bond and insurance requirements against default, loss or theft. For a transferable receipts system to be viable, there needs to be specific licensing of warehouse operators, a tracking system to register every change of ownership (to ensure only one party has legal title), and the establishment of clear legal rights for receipt bearers and of receipts as documents of title (mortgage able).

Clearly, a transferable warehouse system is highly complementary to the functions of the exchange. The receipts system goes hand in hand with a commodity exchange in that:

- ❖ Grades and standards are essential to warehouse operations as well as to a commodity exchange with standardized contracts;
- ❖ Price transparency is achieved because receipts indicate a specific grade, which generates price information that can also be used on the exchange;
- ❖ Risk is transferred by selling receipts on the exchange; and,
- ❖ Integrity and order: the legal enforcement of quality and of the transferability of the receipt is vital for both the warehouse receipts system. (Eleni Z. Gabre-Madhin and Ian Goggin, 2005)

#### **2.7.4 A System That Increases Market Volume and Liquidity and Reduces Risk**

A successful commodity exchange provides transactions for its participant's farmers, processors, traders, large consumers, food aid agencies, parastatal agencies, and others in a low-cost environment. The lowering of costs is passed on to market actors who can then directly benefit from a higher share of the final price. This in turn generates incentives for increased market volume, and provides an incentive for increased participation in the market.

Further, particularly when linked to a negotiable warehouse receipts system, the increased liquidity as market transactions increase, over time evolving to futures trading, implies that the thinness of markets lessens, and the market can be expected to enable the transfer of risk from

market actors such as farmers to those who are keen to absorb risk, such as speculators. (Eleni Z. Gabre-Madhin and Ian Goggin, 2005)

## **2.8 Launched the eTrade Platform**

The eTRADE Platform was officially launched on October 8, 2015. It has the capacity to trade nearly 5,000 times more transactions than its counterpart “Open Outcry” or “Pit Trading” platform.

The eTRADE platform was entirely developed by the Exchange over the past two years and it has dramatically increase trade efficiency, transparency and accessibility. The eTRADE Platform saw its soft launch on July 20, 2015, by introducing local washed/unwashed byproduct coffee trades. Thus far, a total trade volume of 2,390 MT has been traded on the platform with a trade value of ETB 120 million (US\$5.7 million). The platform facilitates the increase in the number and types of commodities being traded at the exchange, which in turn enables a wide range of farmers to benefit from trading through the exchange. (Dr. M.S. Vasu, 2018)

## **2.9 Launched Traceability System**

To ensure the quality, consistency and safety of their products, the ECX in collaboration with USAID and IBM, has launched the ECX traceability system. The system will encompass over 5 million smallholder farmers engaged in producing multiple commodities traded at the ECX. The system, which will begin by piloting with coffee, is expected to increase exports of high-quality Ethiopian coffee worldwide and enhance market access for specialty coffee from Ethiopia. The implementation of the system will encompass a wide array of new initiatives, including electronic tracking of bags, innovations in washing and processing, and streamlined storage and transportation processes. (Dr. M.S. Vasu, 2018)

## **2.10 Regulation by the Exchange as a Self-Regulatory Organ (SRO)**

Exchanges use self-regulation as necessary components of overall sound business practice and as a means to mitigate legal and compliance risks. In addition to regulation/supervision by government bodies, ECX adopted and implemented strong internal regulatory mechanisms which make it a full edged SRO. The Exchange has a Compliance Division which is entrusted with the task of formulating and implementing internal rules and ensuring the Exchange’s compliance to the Rules at all levels of its operations. It also identifies potential regulatory and

compliance risks and recommends ways to minimize such risks. It conducts internal inquiries and investigations and take disciplinary actions for violations of the rules by members, representatives, clients and employees of the Exchange. It also provides regulatory and compliance advices to the units of the Exchange on ongoing basis. In addition to Compliance, other controlling units of the Exchange, such as Internal Inspection and the Risk Department, review the operations of the business units of Exchange. (Dr. M.S. Vasu, 2018)

Exchange regulators have a double responsibility. The first one is to ensure the safety and soundness of the commodity exchange system. This encompasses four elements:

- Market integrity regulation: to ensure that the prices on the exchange properly reflect the supply and demand conditions of the underlying physical (or asset) markets.
- Prudential regulation: to ensure that commodity exchanges and the other parties that form part of the exchange system (brokers, clearing banks, etc.) are financially sound and able to meet their market obligations. This includes capital rules, internal controls, qualifications of key staff, inspections, etc. The regulatory process should also provide the regulator with information necessary to identify potential problems early on.
- Business conduct regulations: to protect consumers, especially retail clients. This includes risk disclosures, staff training requirements, etc.
- Market stability protection: ensuring that commodity exchanges and related parties do not cause a systemic risk for the rest of the economy. The exchange regulator may share this responsibility with the Central Bank.

Secondly, the regulator has to foster the growth and development of commodity exchanges, including by promoting innovation, permitting new markets to develop, and representing the interests of the exchanges and their stakeholders towards other parts of the government. This requires the regulator to be responsive, and its regulation has to be appropriate (the regulator needs to offer value for money). (African Development Bank, 2013)

### **2.11 The Regulation System for Preventing Market Manipulation**

Regulators have two goals: first, have contract specifications that make manipulations less likely; and second, intervene rapidly when there is a manipulation attempt.

Regulators should monitor positions, understand markets and analyze prices in order to identify manipulation attempts. The exchange is the frontline regulator. It must:

- Collect and evaluate data on individual traders' market activity on an ongoing basis in order to detect and prevent manipulation, price distortions and, where possible, disruptions of the physical-delivery or cash-settlement process;
- Monitor and evaluate general market data in order to detect and prevent manipulative activity that would result in the failure of the market price to reflect the normal forces of supply and demand;
- Demonstrate an effective program for conducting real-time monitoring of market conditions, price movements and volumes, in order to detect abnormalities and, when necessary, make a good-faith effort to resolve conditions that are, or threaten to be, disruptive to the market; and
- Demonstrate the ability to comprehensively and accurately reconstruct daily trading activity for the purposes of detecting trading abuses and violations of exchange-set position limits, including those that may have occurred intraday.

If a manipulation attempt is detected, it should be immediately addressed. This is normally done by the exchange, through largely informal pressure. This essentially consists of politely-made a threat that if the manipulator doesn't stop, the exchange will ensure that he makes a loss. (African Development Bank, 2013).



## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Research Design and Approach**

This research conducted in a descriptive research method in order to describe and specify the market integrity of Ethiopian commodity exchange. Descriptive research is concerned with conditions and relationships that exist; practices that prevail; beliefs, point of views and attitudes that are held; processes that are going on; effects that are being felt; or trends that are developing. At times, descriptive research is concerned with how, what is or what exists is related to some preceding event that has influenced or affected a present condition or event' (Best, 1970).

The study was used both quantitative and qualitative approaches. It allows for both quantitative and qualitative data to be gathered and analyzed using their respective quantitative and qualitative techniques. Moreover, this study was cross sectional survey design. According to Zikmund, a cross sectional survey design is the type of survey design in which necessary data is collected at one point in time from particular set of population. This research design was utilized because of resource and time limitation to undertake longitudinal survey.

#### **3.2 Source of Data**

This study employed both quantitative and qualitative types of data that obtained from primary and secondary data sources. The reason being, the researcher gathered and analyzed qualitative primary and secondary data to complement & elaborate the quantitative type of data. To generate valuable and relevant data, the researcher was depending on both primary and secondary sources of data. Primary data source were collected through employing questionnaire and key informant interviews in order to assess challenges to ensure the market integrity in ECX. In addition, secondary source of data were also used for the study include data from ECX, published and unpublished materials and electronic sources.

#### **3.3 Population of the Study**

Population is a large number of objects and more precisely it is called 'universe' from which the researcher is collecting information (Goddard & Melville, 2004). In research, the word 'population, refers to "the abstract idea of a large group of many cases from which a researcher draws a sample and to which results from a sample are generalized" (Neumann, 2011, P.241).

For the purpose of fulfilling the research's main objective, that is to assess the market integrity of Ethiopian Commodity Exchange, it is necessary to focus on marketing membership (which are trading Members and an intermediary member) of ECX. The population size was determined based on the number of members at the ECX Headquarters as of June 30, 2018, ECX has 347 members (intermediary = 326 and trading = 21). Considering the manageability of data, budget, time and resources availability, the target population was only limited in Addis Ababa. . Furthermore, key selected interview was held with ECX managers.

### **3.4 Sampling Technique and Sampling Size**

#### **3.4.1 Sampling Technique**

It is always difficult or more often impossible to approach the entire universe of the population and collect the data due to some operational problems and practical issues (Creswell, 2009). The objective of sampling is to make correct inference about the aggregate and is only justified if the selected part the sample population is a true representative of the main population.

For this study, the researcher used stratified random sampling and simple random sampling. Stratified random sampling is a sample obtained by separating the population into no overlapping groups, called strata and then selecting a simple random sample from each stratum. Since the sampling frame consists of heterogeneous membership type categories trading Members and an intermediary member, the appropriate sampling technique for the study were found to be stratified sampling technique.

#### **3.4.2 Sampling Size**

The decisions about sample size are influenced by many factors that need to be taken into account. The factors include the cost and time constraints, variability of elements in the target population, required estimation precision and whether the findings are to be generalized and, if so, to what degree of confidence (Hair et al., 2007). For this study to determine the sample size the researcher preferred to use a method developed by Carvalho (1984), as cited in Malhorta Naresh, K. (2007) sample size determination in addition (Sisay, 2017) adopted to obtain the desired sample size of Ethiopian commodity exchange members. At the end of 2018 there were 347 members both trading and an intermediary member at ECX.

**Table 3.1 Sample size determination**

Population Size	Sample size		
	Low	Medium	High
51-90	5	13	20
91-150	8	20	32
151-280	13	32	50
281-500	20	50	80
501-1200	32	80	125
1201-3200	50	125	200
3021-10,000	80	200	315
1001-35000	125	315	500
3501-150000	200	500	800

Source: Carvalho (1984)

Based on this sample size determination method the researcher selected a large sample size which is 80 members of Ethiopian commodity exchange out of total members (347) to increase the accuracy of the data. From ECX member participants the researcher splits the sample in to two subgroup trading members and intermediary members.

**Table 3.2: Sample size of each members group**

Subgroups	Number of members	Percentage of population	Sample size	Percentage of sample
An Intermediary members	326	93.9%	75	93.9%
Trading members	21	6.1%	5	6.1%
Total	347	100%	80	

Source: own 2019

After sample size and the number of members from each group determine, simple random sampling method utilized to determine specific members of ECX that should covered by the study. From 80 total sample size members 75 an intermediary & 5 trading member selected and

the questionnaire distributed randomly to actively participating members as sample respondent to conduct the study.

### **3.5 Data Collection and Instrument**

In this study, the researcher used both semi structured questionnaire and unstructured interview methods of data collection and more specifically a self-administered one. Due to the fact that the study descriptive in nature both quantitative and qualitative data were collected using primary and secondary sources.

The questionnaire was used because it has the advantage of participating large respondents over other data gathering techniques; it limits inconsistency and also saves time. In addition, gathering data by using interview is very important to supplement the information gathered through questionnaires.

The following procedure was pursued to administer questionnaires to respondents. First, the researcher approached potential respondents to ask their cooperation in filling the questionnaire and explained the purpose of collecting data, how the questionnaire will be filled and the confidentiality of to be obtained information. Then, the questionnaires were distributed and respondents were asked to furnish information honestly and return the filled up questionnaire.

The semi structured questionnaire had three parts.

The first part of the questionnaire was about the demographic characteristics of respondents such as sex, age, educational background, occupation, membership type, year of participation and type of product traded.

Part two contains the main part of the questionnaire which assess the overview and challenges of ECX members on market integrity of Ethiopian commodity exchange. Here some question were in statements form and ECX members were asked to express their agreement/disagreement with the five point Likert scale, where 1=strongly agree, 2=agree, 3=neutral, 4=disagree, 5=strongly disagree.

Final part of the questionnaire is open ended question for the respondents.

The interview schedule was designed to conduct unstructured interview with 3 heads of departments within ECX. Before starting interviewing, the researcher introduced himself and

explained the purpose of the study to the interviewee. During interview session, the researchers jot down all important points on notepad and organized them for analysis purpose.

In order to augment the reliability of the data collect by the questionnaire and interview survey and to supplement the data missing in the questionnaire survey, information were acquired from previous works and from different publications was used. In addition, official but unpublished reports and summaries of the ECX were used as sources of secondary data.

A pilot test of the questionnaire was carried out for few member and Ethiopia commodity exchange staffs and the Feedback obtained from the pilot test was incorporated into the questionnaire.

The data collection was held according to the timetable and 80 questionnaires were distributed to the potential respondents. Out of the total questionnaire, 80 (100%) questionnaires were returned and considered for analysis.

### **3.6 Data Analysis Methods**

The data collected using semi-structured questionnaire were edited, coded and analyzed with great care. Both in-house and field editing was undertaken to detect errors that had been committed by respondents during completing the questionnaires. The coding of the possible alternatives in the questionnaire was made in advance of administering the questionnaire to the target respondents.

The qualitative method of data analysis was employed for the analysis of data that were collected through personal interviews. Data collected through questionnaires were analyzed quantitatively by utilizing statistical tools such as tabulation, bar charts, and pie charts to present data. In addition, descriptive statistics such as mean, frequency and percentage were used to analyze and interpret data. For data that were analyzed using mean score, since five point Likert scale was used, mean score of 3.0 was considered as midpoint (neutral), while mean scores of less than 3.0 and greater than 3.0 were assumed as agreement and disagreement, respectively. Data were analyzed with the help of SPSS version 20. Qualitative data that obtained from the open-ended questionnaire and interview presented using narrative analysis. After data had been presented and analyzed, conclusion and recommendations were drawn from the findings.

### **3.7 Validity and Reliability**

Validity is related to research methodology because its primary purpose is to increase the accuracy and usefulness of findings by eliminating or controlling as many confounding variables as possible, which allows for greater confidence in the findings of any given study. The researcher's advisor has checked the validity of questionnaires. This study also addresses content validity through the review of literature.

In order to ensure validity and reliability, the questionnaire was composed of carefully constructed questions classified in to clusters to avoid ambiguity and in order to answer all the research questions. Reliability refers to the consistency or dependability of a measurement technique, and it is concerned with the consistency or stability of the score obtained from a measure or assessment over time and across settings or conditions. The Cronbach's Alpha statistic varies between 1 (an indication of perfect internal reliability) and 0 (an indication of no internal reliability) (Pallant, 2007). Using SPSS software, the result of Cronbach's Alpha coefficient is 0.861 which shows that the instrument is well enough consistent.

### **3.8 Ethical Consideration**

This research work strictly adheres to the ethical principles with respect to the data used in the work. The respondent has the right to respond or not, the respondent has the right to participate or not, the study was informing respondents the purpose of the questioner and the study considers the confidentiality of the response by not asking to state name. While conducting the study, emerging ethical issues should be considered and will be given attention.

## CHAPTER FOUR

### DATA ANALYSIS AND INTERPRETATION

#### 4.1 Demographic Characteristics of the Respondents

The demographic features and individual characteristics of the respondents play a significant role in the analysis of the survey questionnaire.

**Table 4.1: Demographic characteristics of the respondent,**

		Frequency	Percent	Cumulative Percent
Valid	Male	61	76.3	76.3
	Female	19	23.8	100.0
	Total	80	100.0	
Valid	18-30 years	37	46.3	46.3
	31-59 years	43	53.8	100.0
	Total	80	100.0	
Valid	Primary	5	6.3	6.3
	Secondary	8	10.0	16.3
	Diploma	15	18.8	35.0
	Degree	47	58.8	93.8
	Post-graduate	5	6.3	100.0
	Total	80	100.0	
Valid	Private sector	64	80.0	80.0
	Merchant	16	20.0	100.0
	Total	80	100.0	
Valid	Buyer	42	52.5	52.5
	Seller	38	47.5	100.0
	Total	80	100.0	
Valid	All	79	98.8	98.8
	Coffee	1	1.3	100.0
	Total	80	100.0	

*Source:* own survey result, 2019.

As shown in Table 4.1, about 76.3% of the respondents were male and only 23.8% were females. This shows that the major of participants in the Ethiopian commodity exchange were dominated by male members of the exchange. The knowledge of different categories of age is important as it provides researcher with indicator for the experience of participants. From the descriptive result of the research, majority of the respondents fall within age group of 31-59 years (53.8%)

and the rest (46.3%) in the age group of 18-30 years. These reveal that most of the respondents fall under age category that's facilitating experienced decision making.

From the analysis on educational background of respondents, it was found that 47 respondents (58.8%) are degree holder, 15 respondents (18.8%) are diploma holders, 10 respondents (10%) are complete secondary school and the remaining 5% are primary school and post-graduates respondents respectively as indicated in table 4.1. The profile shows that most respondents are graduates with degree, as the level of the participant's educational level increases, the level of accessing market information through internet and SMS was also found increasing.

With regard to respondents' occupation, as table 4.1 shows, the majority 80% respondents were found to be private sector employees, while the remaining 20% responded as they were merchants on the space provided to fill their occupation.

As the results of the study in table 4.1, revealed 52.5% of the respondents replied they are participating as buyer in the exchange and the remaining 47.5 % are as seller. This shows that participation in the exchange is balanced in buying and selling of the commodity. Most of the respondent 98.8% expressed they are traded all types of the commodity which is Coffee, Sesame, Haricot Beans, Soya beans & Wheat and the rest replied they only traded Coffee in the exchange.

**Membership categories of the respondent**

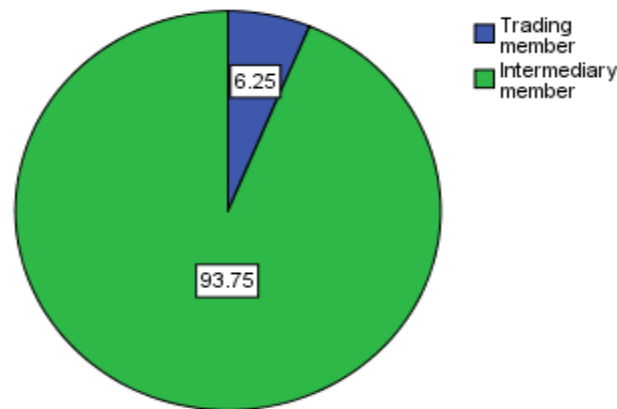


Figure 4.1: Membership categories of the respondent, *Source: own survey result, 2019.*

From the total of 80 respondents 75 (93.75%) are intermediary members and the rest 5 (6.25%) are trading members as indicate in above figure 4.1.



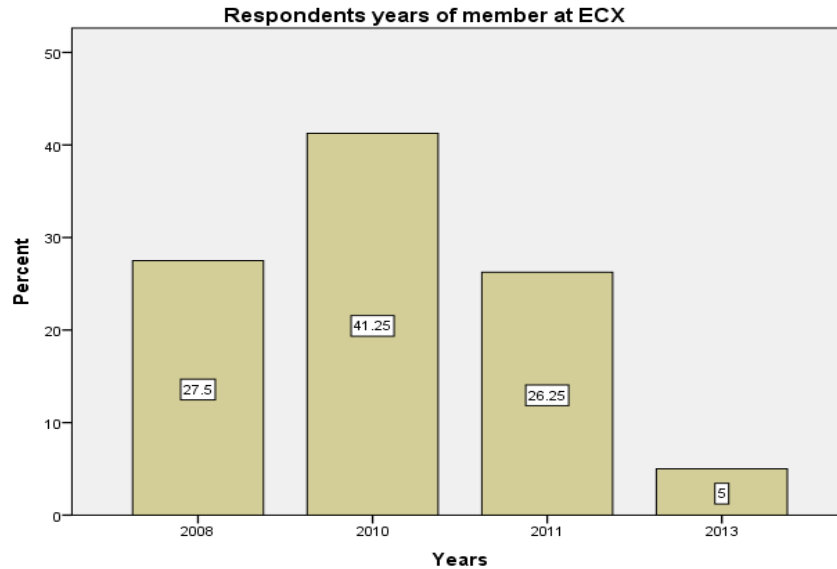


Figure 4.2: Respondents years of member at ECX, *Source: own survey result, 2019.*

With regard to category of participating as trader in Ethiopian commodity exchange, most of the respondents join ECX in the year 2010 which is 41.25%. The respondent starts participating in 2008 at year of ECX officially launch trading is 27.5% and the remaining respondents joins the exchange in the years of 2011 and 2013 are 26.25% and 5% respectively as below figure 4.2 shows. The study indicates that most of respondent members participate for more than 8 years of experience as Ethiopian exchange trader. Because of exchange have experienced members it's good for the exchange to use their experience and built on it.

#### 4.2 Market Information Related Analysis

Among the major bottlenecks in our country's traditional market, all market actors have a lack of market information, particularly small-scale farmers and suppliers has no information about the country and the global market and lack of market value for their produce. Based on the lack of market information, the major goals set out in the establishment of the ECX are to provide market information that is reliable, fast and accessible by enhancing the availability of affordable and competitive prices for their products.

It has been able to deliver complete, accurate and timely marketing information over the past ten years by organizing information-based market information storage and updating its capacity. In addition, the exchange has been using different media channels for marketing information: By

email, SMS, IVR, Media (Radio, Television and Newspapers) and market information made available through the web and social media.

Accuracy of information is level of incorrect data within the overall system data. The availability of timely and accurate information is vital to make appropriate decisions. Market information regarding quantity, price, the quality of different commodities improve the decision making capability of the ECX members and strengthens their bargaining power and productivity.

With regards to the accuracy of the information disseminated by ECX, 27.5% and 58.8% of the respondents responded strongly agree and agree respectively that they get accurate market information and the remaining responded 5% and 8.8% neutral and disagree respectively. The result shows that the majority of the respondents, 81% said that the information they get from ECX are accurate. The mean value of ECX member’s response for the accuracy of the market information was 1.95 as below Table 4.2 shows. This implies that large numbers of ECX members agreed in that they have got accurate marketing information from ECX. Generally, from the above result we can deduce that the information which was disseminated by ECX contained accurate information regarding the price, quality and quantity of the commodity.

**Table 4.2: Accuracy of market information**

	Frequency	Percent	Cumulative Percent	Mean value
Strongly Agree	22	27.5	27.5	1.95
Agree	47	58.8	86.3	
Valid Neutral	4	5.0	91.3	
Disagree	7	8.8	100.0	
Total	80	100.0		

*Source:* own survey result, 2019.

The characteristics of quality information involve relevance, accuracy, consistency and timeliness. Relevance of information is the degree to which data is necessary in order to complete particular user decision and actions.

Regarding the relevance of market information as below Table 4.3 reveals that when ECX members were asked to express their opinion on the statement “relevance of the marketing information disseminated by ECX”. 25% and 66.3% of the respondents responded strongly agree and agree respectively that means the information they get from ECX were relevant to make better decision. The remaining responded 3.8% and 5% neutral and disagrees respectively, and

the mean value of ECX member’s response for relevancy of the market information statement was 1.89. The result implies that ECX members have got relevant market information which was disseminated by ECX for their market decisions.

**Table 4.3: Relevancy of market information**

	Frequency	Percent	Cumulative Percent	Mean value
Strongly Agree	20	25.0	25.0	1.89
Agree	53	66.3	91.3	
Valid Neutral	3	3.8	95.0	
Disagree	4	5.0	100.0	
Total	80	100.0		

*Source:* own survey result, 2019.

With regard to the consistency of market information which disseminated by ECX, 16.3% and 67.5% of the respondent responded strongly agree and agree respectively that they get consistence market information and the remaining responded 11.3% and 5% neutral and disagree respectively. The result indicates that the majority of the respondents, 83.8% said that the information they get from ECX are in a consistent manner. The mean value of ECX member’s response for consistency of the market information was 2.05 as below Table 4.4 shows. From the above result, we can assume that the information by ECX disseminated in consistence manner for members decision making.

**Table 4.4: consistency of market information**

	Frequency	Percent	Cumulative Percent	Mean value
Strongly Agree	13	16.3	16.3	2.05
Agree	54	67.5	83.8	
Valid Neutral	9	11.3	95.0	
Disagree	4	5.0	100.0	
Total	80	100.0		

*Source:* own survey result, 2019.

The dissemination of sufficient and on time information is essential for the proper functioning of the agricultural market. This means “information has a key role to play in agricultural development. It serves as a tool for communication between the actors, as the channel for assessing trends, and as the tool for shaping decisions by both producers and policy makers”. As it has been described ECX disseminates market data through different channels. Among these the

electronic price tickers and the website are updated by the recent market data at every trading time.

As it can be observed in Table 4.5, 23.8% and 57.5% of the respondents responded that they strongly agree and agree with the information they get whenever they need it respectively. On the other hand, 7.5% and 11.3% of the respondents said that they neutral and disagree with the statement respectively. The mean value of ECX member’s response of the statement was 2.06.

This implies that large numbers of ECX members agreed in that they have got timely marketing information whenever they need it from ECX and we can deduce that majority of ECX members have got timely information which was disseminated by different ECX communication channels.

**Table 4.5: Timeliness of market information**

	Frequency	Percent	Cumulative Percent	Mean value	
Valid	Strongly Agree	19	23.8	23.8	2.06
	Agree	46	57.5	81.3	
	Neutral	6	7.5	88.8	
	Disagree	9	11.3	100.0	
	Total	80	100.0		

*Source:* own survey result, 2019.

Appropriateness of presentation is the degree to which data processed by the ECX system are accessible and understandable to the users. The ECX member’s response to the ease of understanding of the market information presented on the different data dissemination tool was as indicated in below table 4.6, 25% and 57.5% of the respondents replied strongly agree and agree respectively the remaining responded 5% and 12.5% neutral and disagree respectively. The result shows that the majority of the respondents, 82.5% said that the market information displayed by ECX communication channels was appropriate and easily understood by users. The mean value of ECX member’s response for market information is appropriately understandable by the user was 2.05. This implies that the majority of the respondents found the information displayed via different dissemination channels of ECX can easily understood by members.

**Table 4.6: Appropriateness of market information**

	Frequency	Percent	Cumulative Percent	Mean value
Strongly Agree	20	25.0	25.0	2.05
Agree	46	57.5	82.5	
Valid Neutral	4	5.0	87.5	
Disagree	10	12.5	100.0	
Total	80	100.0		

Source: own survey result, 2019.

The dissemination of market data is closely linked to primary markets as it disseminates price information across major primary markets using a price display board and other media of communication. The market information disseminated by ECX should be fair and non-discriminatory access for all users of the information. With regarding of ECX provides non-discriminatory access to the market information as shows in below table 4.7, 11.3% and 56.3% of the respondents responded strongly agree and agree respectively that ECX provide fair and non-discriminatory access for all users. In contrary to this, 10% and 8.8% respondent responded disagree and strongly disagree respectively hat ECX provide unfair and discriminatory access for users and the remaining 13.8% responded they are neutral. The mean value of ECX member’s response for ECX provides non-discriminatory access to the market information was 2.5. This implies that large numbers of ECX members agreed that ECX provide fair and non-discriminatory access for members.

**Table 4.7: Non-discriminatory access to the market information**

	Frequency	Percent	Cumulative Percent	Mean value
Strongly Agree	9	11.3	11.3	2.5
Agree	45	56.3	67.5	
Valid Neutral	11	13.8	81.3	
Disagree	8	10.0	91.3	
Strongly Disagree	7	8.8	100.0	
Total	80	100.0		

Source: own survey result, 2019.

### 4.3 Price Discovery Related Analysis

Price discovery is defined as the process by which the true price of a commodity is “discovered” through the trading system, in which the “true price” represents the price which reflects the

actual underlying fundamentals of the market in terms of supply and demand. Price discovery is thus at the heart of the performance of the market. If the integrity of the price discovery mechanism is compromised, then price on the Exchange trading system are not true prices and its outcomes became unintended market distortions and/or intended market manipulation.

As described by selected interview true price discovery is highly dependent on the behavior of each and every trader who has access to the trading floor. Lack of true price discovery is one of the causes of price manipulation attempts by market actors. Traders, both sellers and buyers, are tempted to manipulate price through negotiating and fixing prices outside of the market before they get into the trading pit which makes price discovery difficult and thus is challenging the integrity of the market.

ECX aims to provide price discovery function in its floor based trading. Price discovery as a function of market information dissemination contribution for price discovery and Price discovering mechanism in ECX depends on the demand and supply of the market are analyzed in the study. With regarding of ECX disseminates market information that facilitates price discovery as Table 4.8 revealed that respondents responded, 2.5% and 56.3% strongly agree and agree respectively. In contrary to this, 10% responded disagreed and the remaining 31.3% responded neutrally. The mean value of ECX disseminates market information that facilitates price discovery was 2.5. The result indicates that the market information disseminated by ECX facilitates price discovery mechanism.

**Table 4.8: Disseminated market information facilitates price discovery**

	Frequency	Percent	Cumulative Percent	Mean value
Strongly Agree	2	2.5	2.5	2.5
Agree	45	56.3	58.8	
Valid Neutral	25	31.3	90.0	
Disagree	8	10.0	100.0	
Total	80	100.0		

*Source:* own survey result, 2019.

Regarding to Price discovering mechanism in ECX depends on the demand and supply of the market as below table 4.9 shows that most of respondent 47.5% responded agree which means the price discovery mechanism depends on the demand and supply of the market. In contrast to this, 30% of the respondents responded disagreed and remains 22.5% neutral about price

discovery mechanism. The mean value for the mechanism of price discovery was 2.82 which indicates that respondent believe that the Price discovering mechanism in ECX depends on the demand and supply of the market.

**Table 4.9: Price discovering mechanism in ECX depends on demand and supply of the market**

	Frequency	Percent	Cumulative Percent	Mean value
Valid	Agree	38	47.5	47.5
	Neutral	18	22.5	70.0
	Disagree	24	30.0	100.0
	Total	80	100.0	

Source: own survey result, 2019.

#### **4.4 Regulation and Enforcement Related Analysis**

The main objective of the establishment of the Ethiopian Commodity Exchange (ECX) is to create fundamental changes in the marketing of agricultural products from the producers to the supplier, from the supplier to the wholesaler, the wholesaler from the exporter. To this end, in the past ten years, it has been developing an equitable market law and procedure to serve all stakeholders in a market-based trading and demand-oriented trading system. Establishing a marketing regulation system that preserves and controls this marketing system, is working to equally and transparently implement the transaction fairly and transparently.

The Ethiopian Commodity Exchange (ECX) has been able to create market surveillance to monitoring market and demand based trading platforms that enable market participants to participate in equitable competition.

In regulation and enforcement related analysis, respondents have enough knowledge regarding the ECX rules & regulations and types of market manipulation, regulation system & compliance System employed by the Exchange helps to monitor rules violation, the ECX online trading system helps to enhance compliance of the members, regulation systems employed by ECX protect members, arbitration mechanism employed by ECX settles dispute, penalties enforced by ECX help to enhance compliance and clearing & settlement service provided by ECX help to enhance the market integrity functions are analyzed in the study.

**Table 4.10: knowledge of respondent regarding the ECX rules and regulations**

	Frequency	Percent	Cumulative Percent	Mean value	
Valid	Strongly Agree	20	25.0	25.0	2.06
	Agree	45	56.3	81.3	
	Neutral	7	8.8	90.0	
	Disagree	6	7.5	97.5	
	Strongly Disagree	2	2.5	100.0	
	Total	80	100.0		

Source: own survey result, 2019.

As a results of indicate you have enough knowledge regarding the ECX rules and regulations shows in above Table 4.10, about 25% and 56.3% of respondent responded that strongly agree and agree respectively that's means they have enough knowledge about ECX rules and regulation. In contrary to this, 7.5% and 2.5% responded disagree and strongly disagree this shows they don't have enough knowledge about ECX rules and regulation and the remaining 7% responded they have medium knowledge. The mean values of members knowledge about ECX rules and regulations was 2.06 which indicates that most of members have adequate knowledge about rules and regulation employed by ECX.

**Table 4.11: knowledge of respondent regarding the type of market manipulations and other unfair trading practice**

	Frequency	Percent	Cumulative Percent	Mean value	
Valid	Strongly Agree	17	21.3	21.3	2.18
	Agree	42	52.5	73.8	
	Neutral	12	15.0	88.8	
	Disagree	7	8.8	97.5	
	Strongly Disagree	2	2.5	100.0	
	Total	80	100.0		

Source: own survey result, 2019.

Regarding to respondents has enough knowledge about types of market manipulation and other unfair trading practices as a result shows in table 4.11, 21.3% and 52.5% of respondent responded that strongly agree and agree respectively that reveals they have enough knowledge regarding the types of market manipulation and other unfair trading practices. In contrary to this, 8.8% and 2.5% responded disagree and strongly disagree respectively this shows they don't have enough knowledge about types of market manipulations and the remaining 15% responded they



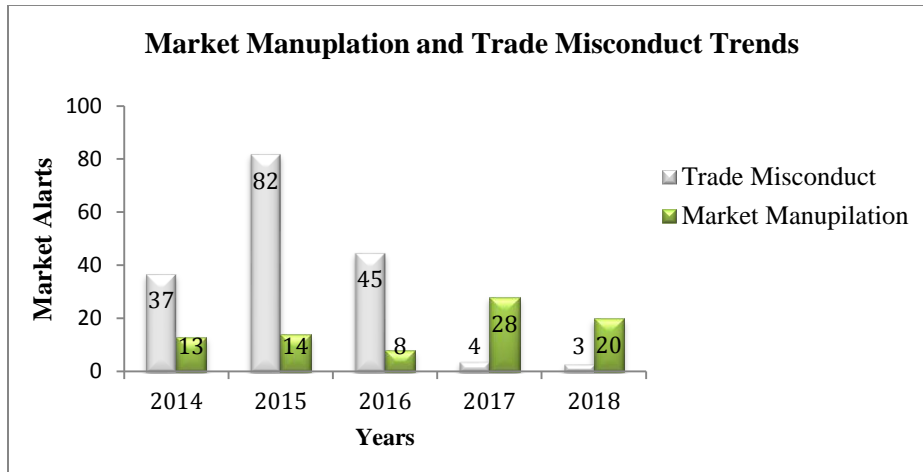
have middle knowledge. The mean values for members knowledge regarding the types of market manipulation and other unfair trading practices was 2.18 which indicates that most of members have adequate knowledge about types of market manipulation and other unfair trading practices in the exchange.

**Table 4.12: Regulation system employed by ECX helps to monitor market manipulation by traders**

	Frequency	Percent	Cumulative Percent	Mean value
Valid	Strongly Agree	8	10.0	10.0
	Agree	40	50.0	60.0
	Neutral	14	17.5	77.5
	Disagree	16	20.0	97.5
	Strongly Disagree	2	2.5	100.0
	Total	80	100.0	

*Source:* own survey result, 2019.

The regulation system employed by ECX helps to monitor market manipulation by traders analyzed in above table 4.12, 10% and 60% of respondent responded that strongly agree and agree respectively they believe that ECX employed regulation system help to monitor market manipulations. In other side, 20% and 2.5% responded disagree and strongly disagree this shows the regulation system employed by ECX doesn't have the capability to monitor market manipulations and the remaining 17.5% responded neutrally. The mean values of the regulation system employed by ECX helps to monitor market manipulation was 2.55 which indicates that most of members believes the regulatory system employed by ECX helps to monitor market manipulation practices in the exchange. Selected interviewees express that trading session will be monitored directly with Marketplace Surveillance applications and other related market monitoring applications and legal measures will be taken if there is a risk of interference with the trading or those who engage in non-competitive bidding.



**Figure 4.3:** Trends of market manipulation and trade misconduct, *Source:* unpublished ECX reports, 2019.

The above figure 4.3 shows the trends of market manipulation and trade misconduct from year 2014 up to 2018 in ECX. In order to prevent and monitor market manipulative activities or rule breaches in the commodities market, the market surveillance unit has been established to address those thoughts. The market surveillance unit helps to ensure an orderly market where buyers and sellers are willing to participate they feel confident in the fairness and accuracy of trades. The marketing surveillance of the ECX works in three stages: pre-trading, trading and post trading.

The trading misconduct practices are side talk, using mobile at the pit, using another language and disturbing the pit. In the last five years trading misconduct practices are shows declining trend, in 2015 there was highest trade misconduct 82 and it's reduced to reach 3 in the year 2018. Prearranged trading, fraud on price and quantity, discriminating practice, trade without prior agreement in the trading pit, dissemination of false market information and flash crash are market manipulation practices occurred in the trading platform. Market manipulation practices of ECX indicate inclined trend rich its highest record of manipulation was 28 and 20 in the year 2017 and 2018 respectively.

According interviewees explain how ECX ensure the compliances of the members by employing compliance systems to enforce the rules of the exchange with the aim of maintaining & advance the ECX market and the integrity of market actors and the system as a whole. When the Compliance Division receives allegations, complaints, tips, or reports of disciplinary violations, it shall conduct a preliminary investigation to determine whether a full investigation is warranted. If the Compliance Division reasonably believes there is a violation of the Rules,

except for category four disciplinary violations, it shall submit the investigation report and a charge to the Business Conduct Committee. A Business Conduct Committee is hereby established to review and discipline violations of the Rules.

**Table 4.13: Compliance System employed by the Exchange helps to monitor rules violation**

	Frequency	Percent	Cumulative Percent	Mean value
Strongly Agree	8	10.0	10.0	2.4
Agree	47	58.8	68.8	
Neutral	15	18.8	87.5	
Disagree	5	6.3	93.8	
Strongly Disagree	5	6.3	100.0	
Total	80	100.0		

Source: own survey result, 2019.

As the result of the study revealed in be table 4.13, 10% and 58.8% of respondent responded that strongly agree and agree respectively that reveals they believe have compliance systems employed by ECX helps to monitor rules violation. In contrary to this, 6.3% responded disagree and strongly disagree respectively this shows rules violation does not monitored by ECX employed compliance system and the remaining 15% responded neutrally. The mean values for compliance systems employed by ECX helps to monitor rules violation was 2.4 which indicates that members believe on compliance system employed by exchange that’s monitor rules violation.

Trading on the Exchange shall take place on the Trading Floor of the Exchange, on an electronic platform provided by the Exchange. As below table 4.14 shows, the perception of respondents the online trading system would help to enhance compliance of the members scored better mean of 2.25. 13.8% and 68.8% of respondents said strongly agree and agree respectively. The outcome with a significant portion of respondents agreeing to this perception is stated the online trading platform would empower the actual members of the commodities not floor representative’s this indicates online trading system would help to enhance compliance of the members.

**Table 4.14: ECX online trading system helps to enhance compliance of the members**

	Frequency	Percent	Cumulative Percent	Mean value	
Valid	Strongly Agree	11	13.8	13.8	2.25
	Agree	55	68.8	82.5	
	Neutral	2	2.5	85.0	
	Disagree	7	8.8	93.8	
	Strongly Disagree	5	6.3	100.0	
Total	80	100.0			

Source: own survey result, 2019.

Unfair trading practices are buy, sell or deal in commodities or contracts in a fraudulent manner, or indulge in any unfair trade practices including market manipulation. It's Effect, take part either directly or indirectly in transactions, which are likely to have the effect of artificially, raise or depress the prices of commodities.

**Table 4.15: Regulation systems employed by ECX protect members from improper trading practice**

	Frequency	Percent	Cumulative Percent	Mean value	
Valid	Strongly Agree	13	16.3	16.3	2.36
	Agree	46	57.5	73.8	
	Neutral	7	8.8	82.5	
	Disagree	7	8.8	91.3	
	Strongly Disagree	7	8.8	100.0	
Total	80	100.0			

Source: own survey result, 2019.

Regarding to regulation systems employed by ECX protect members from improper trading practice as above table 4.15 shows that most of respondent 16.3% and 57.5% responded strongly agree and agree with a mean value of 2.36. In contrary to this, 8.8% responded disagree and strongly disagree respectively this shows the regulation system employed by ECX doesn't protect them from unfair trading practices and the remaining 8.8% responded neutrally. The study revealed that most of the members believe in regulation systems employed by ECX protect them from improper trading practices.

Arbitration mechanism of ECX is responsible for facilitating the resolution of disputes between Members or Members and the Exchange during the course of trading on the Exchange. The exchange has two types of alternative dispute resolution mechanisms first expert determination

mechanism to resolve a grade dispute resolution mechanism for quality disputes between the exchange and its members, and second trade disputes between members and exchange, and between members and their clients.

**Table 4.16: Arbitration mechanism employed by ECX settles dispute**

	Frequency	Percent	Cumulative Percent	Mean value
Strongly Agree	2	2.5	2.5	2.85
Agree	31	38.8	41.3	
Neutral	29	36.3	77.5	
Disagree	13	16.3	93.8	
Strongly Disagree	5	6.3	100.0	
Total	80	100.0		

Source: own survey result, 2019.

With regard to the arbitration mechanism of ECX, about 2.5% and 38.8% of the respondents replied strongly agree and agree respectively that indicates ECX provide an arbitration mechanism for dispute settlement. In contrast to this, 16.3% and 6.3% of the respondents replied disagree and strongly disagree that implies the ECX did not provide an arbitration mechanism for dispute settlements. Therefore, the above result indicates that the majority of members have gotten the service of arbitration mechanism which was provided by ECX.

**Table 4.17: Penalties enforced by ECX help to enhance compliance of the member**

	Frequency	Percent	Cumulative Percent	Mean value
Strongly Agree	12	15.0	15.0	2.88
Agree	23	28.8	43.8	
Neutral	17	21.3	65.0	
Disagree	18	22.5	87.5	
Strongly Disagree	10	12.5	100.0	
Total	80	100.0		

Source: own survey result, 2019.

As above table 4.17 reveals that, about 15% and 28.8% of the respondents replied strongly agree and agree respectively as the penalty enforced by ECX help to enhance compliance of the member. Contrary to the above findings, 22.5% and 12.5% of the respondents revealed disagree and strongly disagree that the penalty imposed does not enhance the compliance of the members and remaining 21.3% respondent neutral about imposed penalties helps to enhance their

compliances. The mean values for Penalties enforced by ECX help to enhance compliance of the member were 2.88 which indicate that large number of respondent believes penalties will enhance the compliance of member but there also significant amount of respondent have indifference and doesn't believes ECX enforced penalty help to enhance members compliance.

To facilitate its automated trade reconciliation system, ECX collaborates with the major banks in Ethiopia to be able to issue transfers between the accounts of traders. A warehouse receipt is also automatic and electronically transferred to the buyer.

**Table 4.18: Clearing and settlement service provided by ECX help to enhance the market integrity**

	Frequency	Percent	Cumulative Percent	Mean value
Strongly Agree	25	31.3	31.3	1.91
Agree	47	58.8	90.0	
Neutral	2	2.5	92.5	
Disagree	2	2.5	95.0	
Strongly Disagree	4	5.0	100.0	
Total	80	100.0		

*Source:* own survey result, 2019.

Regarding clearing and settlement service provided by ECX the above table 4.18 show that, about 31.3% and 58.8% of the respondents replied strongly agree and agree respectively as the clearing and settlement service provided by the ECX help to enhance the market integrity. Contrary to the above findings, 2.5% and 5% of the respondents revealed disagree and strongly disagree that the provided clearing and settlement service does not enhance the market integrity of the exchange and remaining 2.5% respondent neutral about providing service helps to enhance the integrity. The mean values for clearing and settlement service provided by the ECX help to enhance the market integrity were 1.91, which indicate that the majority of respondent believes clearing and settlement service provided by ECX help to enhance the market integrity.

#### **4.5 Challenges for ECX to Ensure Market Integrity**

The challenges for ECX to ensure market integrity as a function of lack of monitor market abuse and manipulative trading, lack of clear and fair rules and regulation to governing access to and participation in markets, market behaviors of member toward improper trading practice and discriminatory access to the market information are analyzed in the study. Addressing some of these challenges is critical for exchange to ensure the market integrity.

**Table 4.19: Challenges for ECX to ensure market integrity**

	Response	Frequency	Percent	Cumulative Percent	Mean value
Lack of monitor market abuse and manipulative trading	Strongly Agree	15	18.8	18.8	2.53
	Agree	31	38.8	57.5	
	Neutral	15	18.8	76.3	
	Disagree	15	18.8	95.0	
	Strongly Disagree	4	5.0	100.0	
	Total	80	100.0		
Lack of clear and fair rules and regulation to governing access and participation in markets	Strongly Agree	16	20.0	20.0	2.46
	Agree	33	41.3	61.3	
	Neutral	11	13.8	75.0	
	Disagree	18	22.5	97.5	
	Strongly Disagree	2	2.5	100.0	
	Total	80	100.0		
Market behaviors of member toward improper trading practice	Strongly Agree	11	13.8	13.8	2.7
	Agree	30	37.5	51.3	
	Neutral	15	18.8	70.0	
	Disagree	20	25.0	95.0	
	Strongly Disagree	4	5.0	100.0	
	Total	80	100.0		
Discriminatory access to the market information	Strongly Agree	5	6.3	6.3	3.04
	Agree	21	26.3	32.5	
	Neutral	22	27.5	60.0	
	Disagree	30	37.5	97.5	
	Strongly Disagree	2	2.5	100.0	
	Total	80	100.0		

Source: own survey result, 2019.

As indicated in the above table 4.19, respondents were asked to scale the challenges of ECX to ensure market integrity. By comparing the mean value of each variable, the lowest mean score implies the top challenges for ECX to ensure the integrity of the market. The mean value of a lack of clear and fair rules and regulation to governing access and participation in markets had lowest mean value of 2.46. This implies that of a lack of clear and fair rules and regulation to governing access and participation in markets was the first and top challenges of ECX to ensure market integrity of the exchange. The mean value for a lack to monitor market abuse and manipulative trading was 2.53. This implies that ECX regulation systems, lack of monitor market abuse and manipulative trading are the second top challenges for the ECX to ensure its market integrity because it has the second lowest mean value compared to other. The mean value of

market behaviors of member toward improper trading practice was 2.7. These indicate that market behaviors of member toward improper trading practice were the third top challenges for ECX. In addition, the mean value of discriminatory access to the market information was 3.04. This implies that discriminatory access to the market information was the least challenge for ECX to ensure market integrity of the exchange because most of the respondents replied disagree and neutral.

Generally, respondents agreed that a lack of clear and fair rules and regulation, a lack to monitor market abuse & manipulative trading and market behaviors of member toward improper trading practice were the most and the top challenges of ECX to ensure the market integrity.

The respondent replied to the open-ended questionnaires of the how ECX should do to ensure market integrity by modifying rules and regulation of the exchange, upgrade the skill of the staffs by giving trainings and control & disciplined staffs that discriminate the member.

From the interview conducted, the selected managers of the exchange explain that ECX has ensured its market integrity, but there are some difficulties hindering the exchange to fully ensure the integrity. Some of the challenges are insider trading which is trading of exchange contracts relying on the use of non-public information, the confidential information come from the employees of the exchange or others within the sphere of knowledge of exchange business its affect the market integrity. There also a limitation from the Exchange side in controlling the trading floor this includes regulation experts are small number, lack of skilled market surveillance staff and their also limitation of market speculator which helps to reduce the risk of the member and enhance the integrity of the market. In addition, there is a physical surveillance mechanism to control such manipulations supported by surveillance cameras, but this is a challenge to the exchange regulatory system because of limitation of adequate cameras and required technological advanced market infrastructures especially with telecom services is a big concern for the traders and the Exchange.



## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

The study was an attempted to assess the market integrity issues of the Ethiopian Commodity Exchange. From the result of the survey, in-depth interview and reviewing of secondary sources so have far attempt has been made to present and analyze the data. This chapter provides the summary, conclusions and recommendations in line with the findings of the study.

#### **5.1 Summary of Major Findings**

The main objective of the study was to assess on market integrity of Ethiopian commodity exchange. This study, conducted in a descriptive research method in order to describe and specify the market integrity of Ethiopian commodity exchange. The study used both primary and secondary sources of data. The target population of the study was ECX intermediary and trading members particularly, actively participating in trading.

The researcher summarized the main point of the study findings as follows:

From the demographic profile of respondents, it revealed that the majority of the participants in the ECX members were male and from the descriptive result of the research majority of the respondents falls within the age group of 31-59 years. Concerning with educational qualification and occupation most of the respondents have graduated with a degree and occupied at private sector employees. From this study it can be summarized that majority of the ECX members are intermediary member and most of them join ECX in the year 2010 and 2008. The studies reveal that balanced membership quota of the buyer and seller in addition, most of the respondents are traded all types of the commodity.

This study revealed that the marketing information provided by ECX was somewhat accurate, relevant, consistent, timely, appropriately understandable and non-discriminatory access to the market information.

Regarding the price discovery mechanism of ECX, most respondents are agreeing with ECX disseminates market information that facilitates price discovery and price discovering mechanism in ECX depends on the demand and supply of the market. But a significant number of respondents have concerns with disseminates market information doesn't facilitate and lack of demand and supply dependent price discovery mechanism.

Based on the findings of the study regarding of regulation and enforcement, the overall result showed a good mean score. Here it can be summarized that members have good knowledge of the ECX rules and regulations and types of market manipulation and other unfair trading practice. In addition to these, the regulation and enforcement analysis measured different aspects of market integrity, regulation system and compliance system deployed by the Exchange helps to monitor market manipulation by traders and monitor rules violation.

This study summarizes the challenges for market integrity of ECX are a lack of clear and fair rules and regulation, a lack to monitor market abuse & manipulative trading and market behaviors of member toward improper trading practice

## **5.2 Conclusions**

Based on the findings of the study, the researchers advance the following conclusions:

Market information related analysis with the lowest mean scores, therefore; it is possible to conclude from this study that the ECX provide consistent, accurate, neutral, and timely market information So that members can refer these data to make an informed decision.

From the results obtained it can be concluded that the Exchange's price discovery mechanism is somewhat good condition, but the exchange must work hard to create transparent and competitive price discovery mechanism.

From the analysis of the study it can be concluded that there are market manipulation and trade misconduct by members who have good knowledge of all the trading rules & regulations and types of manipulation, the exchange must work on regulation and compliance system to advance satisfaction of its member regarding their trust and integrity of the exchange. From the finding of the study trade misconduct shows decline trends, but market manipulation show increment in the five year trend. Concerning with an arbitration mechanism settles disputes and penalties enforced by ECX help to enhance compliance of the member, the result shows the average mean value it can be concluded that the exchange must be enhance arbitration mechanism and enforced penalties. From this study it can be concluded that clearing & settlement service provided by ECX help to enhance the market integrity is satisfied majority of the members with lowest mean values, the exchange must continue its excellent services.

Finally, this study found that a lack of clear and fair rules and regulation, a lack to monitor market abuse & manipulative trading and market behaviors of member toward improper trading practice were the most and the top challenges of ECX to ensure the market integrity. Therefore, it is possible to conclude that lack of clear and fair rules and regulation, a lack to monitor market abuse & manipulative trading related problems were the main challenges of ECX for the market integrity. Furthermore, ECX has a problem of adequate and skilled manpower and required technology which needs improvement to ensure the market integrity of exchange.

### **5.3 Recommendations**

In line with the findings and conclusions made the researcher gives the following possible recommendation forwarded.

1. In order to improve the price discovery mechanism, ECX should aware the traders and enforce the rule regarding the trading system that should be respected by all, and introduce mechanisms that could create better competitiveness while trading in ECX.
2. Significant emphasis should also be placed on the development of regulatory capacity and competency in the area of surveillance. Regulators and exchanges should focus on building appropriate technical capacity and capabilities to effectively identify and analyze potential aberrations in the market place and react accordingly.
3. The ECX regulator should work hard to enforce the rules of the Exchange that creates competitive bid & offer and transparency. The BCC of ECX should penalize rule violators in a manner that could make them learn from their mistakes and deter further violations.
4. In order to minimize the trade related violations the ECX should deploy an integrated market surveillance mechanism that is supported by high definition cameras that can trace trader's activities. The ECX should also train its staff with market surveillance concepts, techniques that could help them identify market manipulation behaviors.
5. As the study revealed that there are insider trading in ECX, employees have participated in disseminating confidential information against the rules, therefore, ECX is expected to create a means of checking up the conducts of the employees and discipline them to avoiding this problem.

6. ECX should intensely investigate its rules and regulation breaches that creating an adverse effect on the integrity of the exchange.

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**APPENDIX- 1 Questionnaire (English version)**

*St. Mary's University*

*School of Graduate Studies*

*Department of Business Administration*

**Dear participants:**

The questionnaire is prepared by Masters of Business Administration graduate student for the purpose of writing thesis on 'An assessment of market integrity of Ethiopian commodity exchange'. Your genuine, frank, timely response is vital for the success of my study. I want to assure you that your privacy for responding to this questionnaire is completely kept confidential. I know that your time is valuable and I hope that you will take the time to complete the questionnaire.

Please attempt to answer all the questions and click one in appropriate box that best suits your perspective for each statement.

**Thank you in advance for your cooperation!!!**

**Sincerely yours,**

**Kirubel Ayecha**

**E-mail: ayekirubel2000@gmail.com**

## I. DEMOGRAPHIC INFORMATION

Choose the suitable answer and tick (√) in the box given for each question.

1. Gender: Male  Female
2. Age: 18-30 years  31-59 years   
60 years and above
3. Education qualification: Primary  Secondary  Diploma   
Degree  Post-graduate  Others.....
4. Occupation: Government employee  Private sector   
Merchant  Others.....
5. In which categories of membership did you participate?  
Trading member  Intermediary member
6. How long have been trading as a member at ECX? \_\_\_\_\_
7. Are you buyer or seller at ECX? \_\_\_\_\_
8. What type of commodity you have traded? \_\_\_\_\_



## II. ASSESSMENT OF MARKET INTEGRITY AND ITS CHALLENGE IN ECX.

Please rate state your level of agreement for each given statement by tick (√) against corresponding lines.

No.	Item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<b>Part I</b>	<b>Market information related question</b>					
1	ECX disseminates accurate market information.					
2	ECX disseminates relevant marketing information.					
3	ECX provides market information in consistent manner.					
4	ECX provides market information in timely manner.					
5	ECX market information is appropriately understandable by user.					
6	ECX provides non-discriminatory access to the market information.					
<b>Part II</b>	<b>Price discovery mechanism related question</b>					
7	ECX disseminates market information that facilitates price discovery.					
8	Price discovering mechanism in ECX depends on demand and supply of the market.					

<b>Part III</b>	<b>Regulation and enforcement related question</b>					
9	Indicate you have enough knowledge regarding the ECX rules and regulations.					
10	Indicate you have enough knowledge regarding the type of market manipulations and other unfair trading practice.					
11	Regulation system employed by ECX helps to monitor market manipulation by traders.					
12	Compliance System employed by the Exchange helps to monitor rules violation.					
13	ECX online trading system helps to enhance compliance of the members.					
14	Regulation systems employed by ECX protect members from improper trading practice.					
15	Arbitration mechanism employed by ECX settles dispute.					
16	Penalties enforced by ECX help to enhance compliance of the member.					
17	Clearing and settlement service provided by ECX help to enhance the market integrity.					
<b>Part IV</b>	<b>Challenges for ECX to ensure market integrity</b>					
18	Lack of monitor market abuse and manipulative trading					

19	Lack of clear and fair rules and regulation to governing access and participation in markets.					
20	Market behaviors of member toward improper trading practice.					
21	Discriminatory access to the market information.					

22. How should ECX ensure market integrity?

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## **APPENDIX- 2 INTERVIEW QUESTION FOR ECX MANAGERS**

1. What is price discovering mechanism in ECX?
2. How do the regulation systems employed by ECX protect members from improper trading practice?
3. Do you think ECX is ensuring compliance of its members? How?
4. How does the regulation system employed by ECX help to monitor market manipulation by traders?
5. Do you think that ECX has ensured the market integrity?
6. What are the challenges faced by ECX to ensure the market integrity?

**APPENDIX- 3 Questionnaire (Amharic version)**

**ቅድስተ ማርያም ዩንቨርሲቲ  
ድገረ-ምረቃ ት/ቤት  
ቢዝነስ አስተዳደር ትምህርት ክፍል**

ለኢትዮጵያ ምርት ገበያ አባላት የተዘጋጀ መጠይቅ

ውድ የኢትዮጵያ ምርት ገበያ አባላት

የዚህ ጥናት አጥኚ በቅድስተ ማርያም ዩንቨርሲቲ በቢዝነስ አስተዳደር ት/ክፍል ሁለተኛ ዲግሪ ማስተርስ ትምህርት በመከታተል ላይ ይገኛል። “በኢትዮጵያ ምርት ገበያ ስላለ የገበያ ተዳማኒነትን መገምገም” በሚል ርዕስ የመመረቁ ጥናት በማካሄድ ላይ ይገኛል።

በዚህ መጠይቅ የምትሰጡት መረጃ ለትምህርት ተግባር የምጠቀምበት እና በሚስጥር የሚጠበቅ መሆኑን ላረጋግጥ እወዳለሁ። ለጥናቱ ስኬት የእርሶዎ ቀና፣ ግልጽ እና በወቅቱ ማላሽ በጣም አስፈላጊ ነው። በመሆኑም በዚህ መጠይቅ የቀረቡት ጥያቄዎች ተገቢውን ምላሽ በቅንነትና በታማኝነት እንዲሰጡኝ በትህትና እጠይቃለሁ።

እባክዎን ሁሉንም ጥያቄዎቹ ለመመለስ ይሞክሩ በተጨማሪም የእርሶዎን ሀሳብ በሚገልጸው ዐርፍተ ነገር ያለውን ተገቢውን ሳጥን ምልክት በማድረግ ምላሽ ይስጡ።

**ስለ ትብብራችሁ በቅድሚያ እናመሰግናለን!!!**

**ከሠላምታ ጋር**

**ኪሩቤል አዩቻ**

**ኢ.ሜል: ayekirubel2000@gmail.com**

**I. የግል ሁኔታ መጠይቅ:**

ተስማሚውን መልስ በመምረጥ ለእያንዳንዱ ጥያቄ በተሰጠው ሳጥን (✓) ምልክት ያድርጉ::

1. ስድስት ወንድ  ሴት
2. ዕድሜ: ከ18-30 ዓመት  ከ31-59 ዓመት  ከ60 ዓመት በላይ
3. የትምህርት ደረጃዎ: አንደኛ ደረጃ  ሁለተኛ ደረጃ  ዲፕሎማ   
ዲግሪ  ድካረ-ምረቃ  ልላ.....
4. ስራ: የመንግስት  የግል   
ነጋዴ  ልላ.....
5. በምን የአባልነት መደብ ውስጥ ነው እሚሳተፉት?  
ተገቢያይ አባል  አገናኝ አባል
6. ምን ያህል ጊዜ በኢትዮጵያ ምርት ገበያ አባልነት ሲገቢያዩ ቆይተዋል? \_\_\_\_\_
7. በኢትዮጵያ ምርት ገበያ ገዢ ወይም ሻጭ ነዎት? \_\_\_\_\_
8. ምን አይነት ምርት ነው የሚገቢያዩት? \_\_\_\_\_

**II. የኢትዮጵያ ምርት ገበያን የገበያ ተዓማኒነትን እና ችግሮቹን መገምገም፡**

እባክዎ ከተዘረዘሩት ዓ/ነገሮች መካከል እንደ መስማማቶ መጠን ባለው ክፍት ቦታ ላይ (✓) ምልክት ያድርጉ፡፡

ተ.ቁ		በጣም እስማማለሁ	እስማማለሁ	ገለልተኛ	አልስማማም	በጣም አልስማማም
<b>ክፍል 1</b>	<b>ከገበያ መረጃ ጋር የተያያዘ ጥያቄ</b>					
1	የኢትዮጵያ ምርት ገበያ ትክክለኛ የገበያ መረጃ ያሰራጫል፡					
2	የኢትዮጵያ ምርት ገበያ ጠቃሚ የገበያ መረጃ ያሰራጫል፡					
3	የኢትዮጵያ ምርት ገበያ ወጥነት ባለው መንገድ የገበያ መረጃ ያቀርባል፡					
4	የኢትዮጵያ ምርት ገበያ ጊዜውን የጠበቀ የገበያ መረጃ ያቀርባል፡					
5	የኢትዮጵያ ምርት ገበያ ለመረዳት አመቺ የገበያ መረጃ ለተጠቃሚው ያቀርባል፡					
6	የኢትዮጵያ ምርት ገበያ ከአድሎዎ የነጻ የገበያ መረጃ አማራጭ ያቀርባል፡					
<b>ክፍል 2</b>	<b>ከዋጋ መፍጠር ዘዴ ጋር የተያያዘ ጥያቄ</b>					
7	በኢትዮጵያ ምርት ገበያ የሚሰራጨው የገበያ መረጃ የዋጋ መፍጠር ሂደትን ያመቻቻል፡					
8	በኢትዮጵያ ምርት ገበያ ያለው የዋጋ መፍጠር ዘዴ በገበያ ፍላጎት እና አቅርቦት ላይ የተመሠረተ ነው፡					
<b>ክፍል 3</b>	<b>ከደንብ እና አፈፃፀም ጋር የተያያዘ ጥያቄ</b>					
9	ስለ ምርት ገበያው ህግ እና ደንብ በቂ ግንዛቤ አለኝ					
10	ስለ ገበያ ጥሰቶች እና ፍትህዊ ስላልሆኑ የንግድ ተግባሮች በቂ ግንዛቤ አለኝ					
11	በኢትዮጵያ ምርት ገበያ የተተገበረው ቁጥጥር ስርዓት የነጋዴውን የገበያ ጥሰት ለመቆጣጠር					

	ይረዳል፡					
12	በኢትዮጵያ ምርት ገበያ የተተገበረው የህግ ተገዢነት ስርዓት የህግ ጥሰቱን ለመቆጣጠር ይረዳል፡					
13	የኢትዮጵያ ምርት ገበያ online ግብይት ስርዓት አባላቱን የህግ ተገዢነት ለማሳደግ ይረዳል፡					
14	በኢትዮጵያ ምርት ገበያ የተተገበረው ቁጥጥር ስርዓት አባላትን ተገቢ ካልሆነ የንግድ ተግባር ይጠብቃል፡					
15	በኢትዮጵያ ምርት ገበያ የተተገበረው የግልግል ዘዴ ክርክርን ያስማማል፡					
16	በኢትዮጵያ ምርት ገበያ የሚፈጸመው ቅጣት የአባላቱን የህግ ተገዢነት ለማሳደግ ይረዳል፡					
17	በኢትዮጵያ ምርት ገበያ የሚቀርበው ክፍያና ርክክብ ስርዓት የገበያ ተዳማኒነት ለማሳደግ ይረዳል፡					
<b>ክፍል 4</b>	<b>የኢትዮጵያ ምርት ገበያ የገበያ ተዳማኒነት ለማረጋገጥ ያሉበት ተግዳሮቶች</b>					
18	ገበያውን አላግባብ መጠቀምና ማጭበርበርን ለመቆጣጠር አለመቻል፡					
19	የገበያ ተደራሽነትን እና ተሳትፎን ለመቆጣጠር ግልጽና ፍትሃዊ ህግ እና ደንብ አለመኖር፡					
20	የአባልት አግባብ ላልሆነ ግብይት ያለ ልምድ፡					
21	አድሎዊ የገበያ መረጃ አቀራረብ፡					

22. የኢትዮጵያ ምርት ገበያ እንዴት የገበያ ተዳማኒነቱን ማረጋገጥ ይችላል?

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