

Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Economics



Master's Thesis

FAIRTRADE AND CERTIFICATION OF COFFEE IN ETHIOPIA

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DIPLOMA THESIS ASSIGNMENT

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Thesis title

FAIRTRADE AND CERTIFICATION OF COFFEE IN ETHIOPIA

Objectives of thesis

Coffee for many ages has always been an important cash crop in Ethiopia especially the coffee arabica. Presently, the Ethiopian montane rainforests contain naturally renewing coffee populations as a brush shrub under the coverage of the forest canopy. The rural population living in or adjacent to the forests locally utilize the coffee for personal consumption and as a cash crop. In total, approximately 60-70% of the total production of Ethiopian coffee is derived from forest and semi-forest production systems (Stellmacher & Grote, 2011). They talk about fair trade in Ethiopia but it is clear that the prices are not fair, farmers are not able to make profit from selling coffee, this has been an ongoing issue in Ethiopia since the 2000s .

In spite of the growing number and potency of newly ascertained value chains for certified coffees from Ethiopia with seemingly drastic and multidimensional influence on livelihoods of thousands of coffee manufacturing small holders across the country, there is still a considerable lack of experiential local research that can validate and count the welfare influence of certification on small-scale coffee manufacturing living in Ethiopia (Pradyot Ranjan Jena, 2012).

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The thesis will focus on secondary data.

Coffee as a commodity

Fairtrade defined

Coffee in Ethiopia

The effect of fair-trade on Ethiopia coffee

The marketing chain

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Fair trade, certification, coffee, Ethiopia

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Declaration

I declare that I have worked on my master's thesis titled " **FAIRTRADE AND CERTIFICATION OF COFFEE IN ETHIOPIA** " by myself and I have used only the sources mentioned at the end of the thesis. As the author of the master's thesis, I declare that the thesis does not break any copyrights.

In Prague on 3/26/2022

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FAIRTRADE AND CERTIFICATION OF COFFEE IN ETHIOPIA

Abstract

Fair Trade labeled products have become increasingly popular for western consumers in recent years. Fair Trade Labelling Organization International (FLO) claims to contribute to development by increasing profits to farmers and empowering producer communities. This thesis evaluates the economic impact of Fair-Trade certification for small-scale coffee farmers in Ethiopia when world market prices for coffee are relatively high. Two cooperative unions are interviewed about Fair Trade and the coffee marketing chain in Ethiopia is described. An ANOVA analysis based on secondary data collected from similar studies, research, and data in Ethiopia shows that Fair Trade certified farmers are not economically better off than those that are not certified. Fair Trade certified farmers receive a remarkably higher price than other farmers even though FLO does not claim to increase prices for farmers at a time of high world market coffee prices.

Keywords: Fairtrade, Coffee, small scale farmers, Ethiopia, Market chain

FAIRTRADE A CERTIFIKACE KÁVY V ETIOPII

Abstrakt

Produkty označené Fair Trade jsou v posledních letech pro západní spotřebitele stále populárnější. Fair Trade Labeling Organization International (FLO) tvrdí, že přispívá k rozvoji tím, že zvyšuje zisky pro drobné farmáře a posiluje komunity producentů. Tato práce hodnotí ekonomický dopad certifikace Fair-Trade pro drobné pěstitele kávy v Etiopii v období, kdy jsou ceny kávy na světovém trhu relativně vysoké. V práci je popsán marketingový řetězec kávy v Etiopii a provedla jsem dotazníkový průzkum u dvou družstevních svazů specializovaných na kávu na téma Fair Trade. Analýza ANOVA založená na sekundárních datech shromážděných z podobných studií, výzkumů a dat v Etiopii ukazuje, že farmáři s certifikací Fair Trade na tom nejsou ekonomicky lépe než ti, kteří certifikaci nemají. Analýza ANOVA nepotvrdila žádný významný rozdíl mezi certifikovanými a necertifikovanými farmáři, pokud jde o ekonomické přínosy pro drobné farmáře

Klíčová slova: Fairtrade, Káva, drobní farmáři, Etiopie, Obchodní řetězec

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List of abbreviations

GDP- Gross domestic Products

SNNPR- Southern Nations, Nationalities, and Peoples' Region

ECFF- Environment and Coffee Forest Forum

FLO- Fair Trade Labelling Organizations International

FLO-CERT- Fair Trade Labelling Organizations International Certification

UTZ- Sustainability company

GLOBAL G.A.P- Global Good Agricultural Practice

NBE- National Bank of Ethiopia

CSA- Central Statistical Agency

ICO- International Coffee Organization

FC- Forest Coffee

SFC- Semi-managed Forest Coffee,

GC- Garden Coffee

ECX- Ethiopia Commodity Exchange

VAT- Value Added Tax

ECMC- Ethiopian Coffee Marketing Corporation

ECEA- Ethiopian Commodity Exchange Authority

PLCTC- Primary Level Coffee Transaction Centers

EU- European Union

ODI- Open Data Institute

USAID- United States Agency for International Development

EGTE- Ethiopian Grain Trade Enterprise

TM- Trading Member

IM- Intermediary Member

USD- United State Dollar

DST- Direct Specialty Trade

SCAA- Specialty Coffees Association of America

FAO- Food and Agricultural Organization

OCFCU- Oromia Coffee Farmers' Cooperative Union

SCFCU- Sidama Coffee Farmers Cooperative Union

CPDE- Coffee Plantation Development Enterprise

GAP- Good Agricultural Practice

CAFE- Coffee And Farmer Equity

1. INTRODUCTION

Ethiopia is a country that is especially presented to conceivable unfriendly effects of environmental change in light of the fact that a huge extent of the populace is subject to horticulture for work and pay, the country has a low gross domestic product (GDP) per capita, offering agricultural households little capacity to compensate for income losses from weather-related shocks (Timothy, Michael, Miriam, Habtamu, & Mezgebu, 2013).

Recently, research has shown that Ethiopia is one of the oldest producers, consumers, and exporters of coffee in the world. All Ethiopian traders were used to trading coffee in caravans of mules, camels, and donkeys for many centuries (Fekede & Ketebo, 2018).

Coffee for many ages has always been an important cash crop in Ethiopia, especially coffee arabica. Presently, the Ethiopian montane rainforests contain naturally renewing coffee populations as a brush shrub under the coverage of the forest canopy. The rural population living in or adjacent to the forests locally utilize the coffee for personal consumption and as a cash crop. In total, approximately 60-70% of the total production of Ethiopian coffee is derived from forest and semi-forest production systems (Stellmacher & Grote, 2011). Ethiopia is known to have a specific coffee tradition and culture, and approximately 50% of its production is domestically consumed. There is an obvious difference in the quality coffee of the local market and exported coffee. To increase coffee exports and income, the government bans the sale of export quality coffee on the local market. In Ethiopia, the coffee sector is mostly a smallholder sector with about 95% of production realized from small family farms with an average farm size which is less than 2 ha, and the rest of the land is focused on large plantations (Fikadu, Mey, Jan, & Miet, 2017).

Ethiopia is known to be rich in various types of coffee, like Arabica, kafta, gera, Mizan Tefer, Bonga, Jimma and agaro, Sidamo, etc, amongst all these, arabica is still the best and most popularly consumed coffee around the world (Behailu, Abrar, Negussie, & Solomon, 2020). The real coffee growing areas are discovered within Oromia Region and Southern Nations, Nationalities, and Peoples' Region (SNNPR), with moderate production in Amhara Region and modest product in a region called Benishangul-Gumuz (ECFF, 2017).

Fair Trade Labelling Organizations International (FLO) assertion to offer manufacturers a minimum amount and a price premium for their goods so they can cover their production costs and plan their production, and not be afraid of being struck by fluctuating prices. The Fair-Trade premium is intended to help producers to improve their quality of life through social projects. According to FLO the most common Fair Trade labeled product is coffee.

For a long time, Ethiopia's coffee market system has had a long market channel. In these channels, the main issue was the lack of market calibration, fairness, translucency, and efficiency. The governance system in Ethiopia has been taking, therefore, different, and multiple measures to reduce and improve the problems. These measures are widely connected to coffee production and yield as well as the coffee trade (Fekede & Ketebo, 2018). The volatility of coffee markets together with poor production infrastructure and services have immersed the majority of coffee producers in developing countries in low-input-low-output cycles and structural poverty. In the recent past, due to the interplay between increasing poverty of coffee smallholders in major producer countries and growing demands for healthier and more socially and environmentally-friendly produced coffee in larger consumer countries, certification of cooperatives has gradually gained wider significance worldwide (Petit, 2007) (Stellmacher & Grote, 2011). They talk about fair trade in Ethiopia, but the prices are not fair, farmers are not able to make a profit from selling coffee, this has been an ongoing issue in Ethiopia since the 2000s.

Despite the growing number and potency of newly ascertained value chains for certified coffees from Ethiopia with seemingly drastic and multidimensional influence on livelihoods of thousands of coffee manufacturing smallholders across the country, there is still a considerable lack of experiential local research that can validate and count the welfare influence of certification on small-scale coffee manufacturing living in Ethiopia (Jena, Chichaibelu, Stellmacher, & Grote, 2012)

2. OBJECTIVES AND METHODOLOGY

Coffee for many ages has always been an important cash crop in Ethiopia especially the coffee arabica. Presently, the Ethiopian montane rainforests contain naturally renewing coffee populations as a brush shrub under the coverage of the forest canopy. The provincial populace living in or neighboring the forests locally utilize the coffee for personal consumption and as a cash crop. In total, approximately 60-70% of the total production of Ethiopian coffee is derived from forest and semi-forest production systems (Stellmacher & Grote, 2011). They talk about fair trade in Ethiopia but it is clear that the prices are not fair, farmers are not able to make profit from selling coffee, this has been an ongoing issue in Ethiopia since the 2000s .

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2.1. Main Objectives

- To evaluate and analyze whether fair trade labelled small scale coffee impacts the standard of living of the farmers in Ethiopia
- To compare the difference between the certified farmers and non certified.

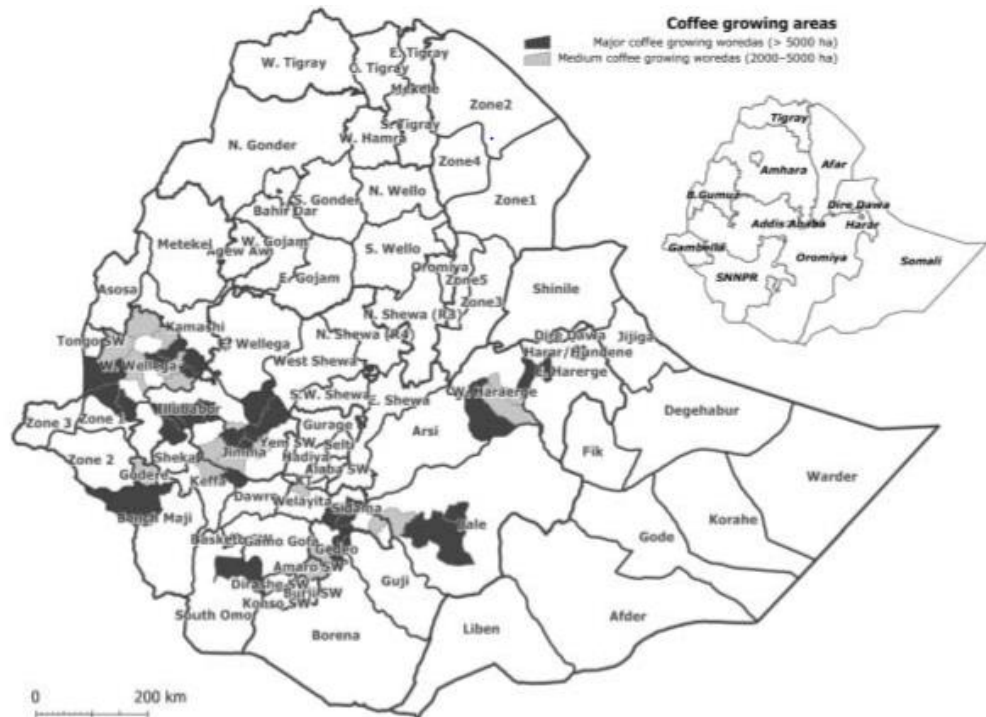
2.2 Methodology

This study is focused on Ethiopia, in the areas shown in the fig. 1 below. Hypothetical piece of the Diploma thesis is principally founded on relevant literature reviews (represented by printed literature, scientific articles, surveys, web sources) and the research of similar studies, using such methods as abstraction, inductive reasoning, analysis, synthesis and deduction.

Practical part contains descriptive statistical analysis and qualitative thematic synthesis of the main economic indicators (selected for the analysis variables). For a descriptive overview

of coffee production, the use of tables and graph was incorporated into the study. The results of ANOVA analysis along with other main outputs and author's recommendations is provided in the Diploma's conclusion.

Figure 1. Coffee growing areas in Ethiopia.



Sources: (Petit, 2007)

3. COFFEE AS A COMMODITY

A commodity could be defined as any well-produced to be exchanged in the market rather than for personal use. (Daviron & Stefano, 2005) define commodities as ‘goods with a world market where most participants and marketers use the same global quality standard to discover measurable attributes. (Henry & Liam, 2006) notes Daviron and Ponte’s elaborations on the features of commodities deal more with the symbolic value of the highly differentiated products that reach the consumerist society and less with producer and intermediate goods.

Coffee is one of the world’s most traded commodities, employing more than millions of people worldwide. About 25 million households are predicted to depend on coffee cultivation. The countries involved in the production of coffee are concentrated in the global south, while countries consuming are mainly in the developed west. Coffee is traded as a commodity on major futures and commodity exchanges in London and New York. There are two major species of coffee: The Arabica and Robusta. This thesis will be focused on Arabica, the only kind of coffee cultivated in Ethiopia. Arabica coffee is prone to diseases, frost, and drought and is best grown in tropical uplands (Gustaf, 2011).

Establish agriculture began in Ethiopia 2000 years ago. Coffee Arabica is being grown in the wild forests of the enormous south-western uplands in the district of Kaffa. Coffee is said to have taken the name of Kaffa, the region where it was first discovered. Export began first in Yemen and was then introduced to Indonesia, India, The Netherlands, Colombia, and Brazil. Coffee in Ethiopia is not only an important export commodity, but it is a part of the Ethiopian culture; about 50 % of the manufactured coffee is consumed locally, and there is even a cultural ceremony related to it. Washed and unwashed coffee manufacturing gradually increases (Alemayehu, 2014). The system of Coffee production in Ethiopia is grouped into four areas i.e. forest coffee, semi-forest coffee, garden coffee, and plantation coffee. Forest coffee is wild coffee that is cultivated under the shadow of natural forest trees, and it mostly doesn’t have an owner. Semi-forest coffee is a farming system where farmers fine and select forest trees to let enough sunlight to the coffee trees and to stipulate sufficient shade. A farmer who trims and uproots the forest area at least once a year can assert the right to own the semi forest coffee. Garden coffee is usually discovered in the area close to a farmer’s residence. It is generally fertilized with organic material and normally inter-cropped with other crops.

In the coffee plantation farming system, fertilisers and herbicides are important. Forest coffee accounts for 10%, Semi Forest coffee accounts for 30%, Garden coffee accounts for 50 %, and Plantation coffees account for 10% according to forest coffee production accounts for 8-10%, semi-forest coffee accounts for 30-35%, garden coffee accounts 50-55% and Plantation coffee accounts 5-8% of its total production respectively. The Small-scale holdings in Ethiopia are equal to or greater than 95% of total coffee production (Alemayehu, 2014).

3.1. Overview Of Fair Trade Labeling Organizations International (Flo) And Fair Trade

Fair Trade Labeling Organizations International (FLO) was founded in Germany in 1997 to “unite labeling initiatives under one organization and harmonize standards and certifications” (FLO, 2011). The Fair Trade certification mark was executed to improve the apperency of the label and to ease processes for both producers and exporters. FLO was divided into FLO and FLO-CERT in 2004. FLO prescribes the standards for Fair Trade, and FLO-CERT inspects and certifies producers and audits traders (FLO, 2011).

Fair Trade is a labelling initiative that targets improving the lives of the poor in developing countries by giving better terms to producers and helping them to organize. Although Fair Trade–certified products still acquire a minute share of the market, e.g. Fair Trade–certified coffee exports were 1.8% of global coffee exports in 2009, growth has been very rapid over the past decade (Dragusanu, Montero, & Nunn, 2014). Fair Trade coffee sales have increased from 12,000 tonnes to 123,200 tonnes in 2011 (Fairtrade International, 2012).

Whether Fair Trade can achieve its intended goals has been seriously argued in academic and policy circles. Mainly, debates have been waged about whether Fair Trade makes “economic sense” and is sustainable in the long run. Development economist (Paul 2017), in his book *The Bottom Billion*, writes: “Fair Trade–certified farmers get charity as long as they stay producing the crops that have imbibed them into poverty”. (The economist, 2006) writes: “perhaps the most reasonable objection to Fairtrade is that it is an inefficient way to get money to poor producers.” Whereas those on the other side of the argument debated that Fair Trade benefits farmers by providing higher incomes and more excellent economic stability. For example, (Laura, 2009) writes that Fair Trade “offers farmers and agricultural workers in the global South better prices, stable market links, and resources for social and

environmental projects” and that it “provides consumers with product choices that ensure high social and environmental standards”.

The emergence of modern Fair Trade labels can be traced back to 1988 when a faith-based non-government organization from the Netherlands started an initiative to ensure that growers of crops in low-income countries were provided “sufficient wages.” The organization designed a fair trade label for its products. It was called Max Havelaar, after a fictional Dutch character who opposed the exploitation of coffee pickers in Dutch colonies. Over the next few years, the concept was repeated in other countries across Europe and North America, with several organizations emerging, such as TransFair and Global Exchange. In 1997, the various national labelling initiatives formed an umbrella association called Fairtrade International. A common Fair Trade Certification mark was launched in 2002, and there are various Fair Trade bodies operating today.

In 2012, Fairtrade International’s largest adherent, Transfair USA, separated from the organization to launch a parallel label, Fair Trade USA. One of the primary reasons for the division was the difference in beliefs about whether the Fair Trade label should only be available to small-scale producers. While Fairtrade International believes that certification should be limited to small producers, Fair Trade USA feels that large producers and plantations should also be certified. “Fairtrade,” the one-word form, is used by Fairtrade International for its certification mark and references to its specific market. “Fair Trade” refers to the general initiative and movement without reference to a specific certification. Fair Trade attempts to achieve several goals; the primary and common is to provide prices that deliver a basic livelihood for producers, particularly smallscale farmers. Other goals include:

- Longer-term buyer-seller relationships, which bring about more access to financing for producers.
- Improved working conditions.
- The creation and maintenance of effective producer or worker organizations.
- The usage of environmentally friendly production processes.

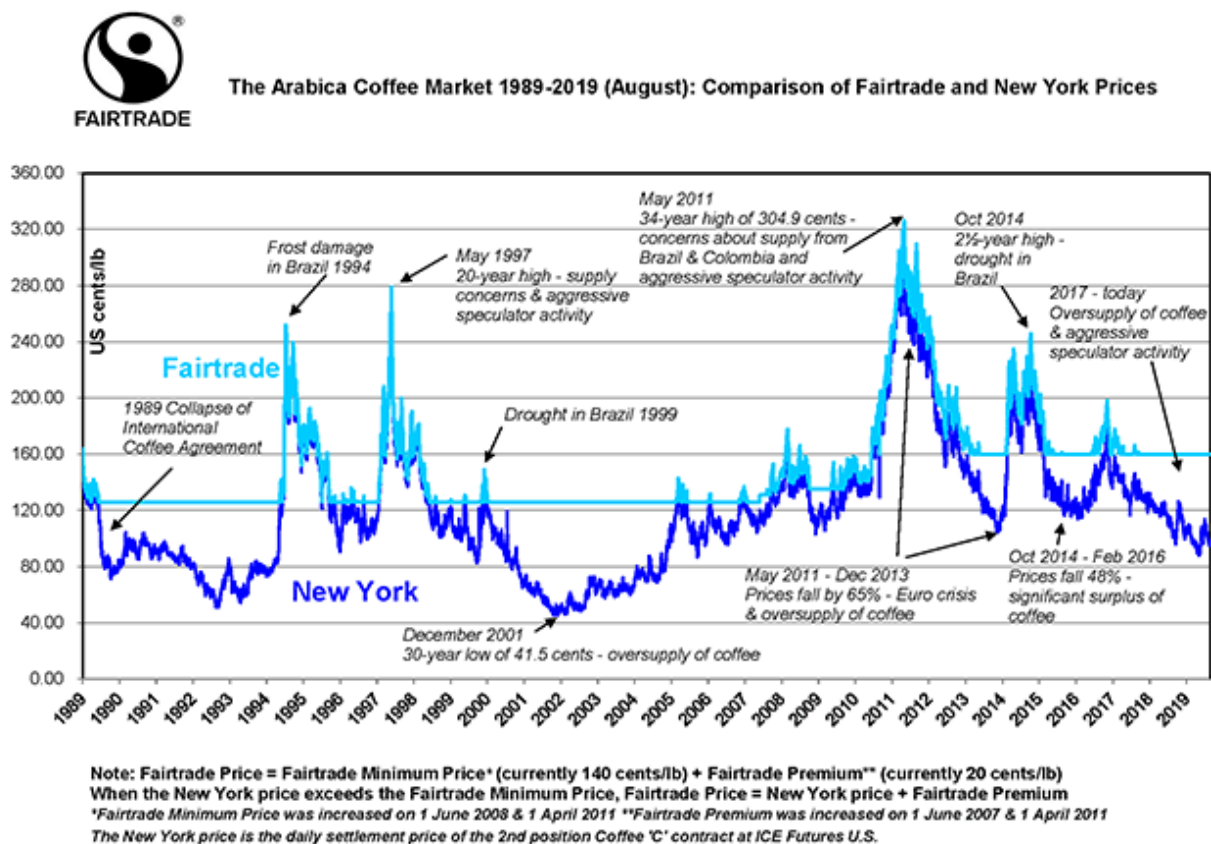
A third-party certification process regularly checks that producers and suppliers comply with a set of requirements aiming to achieve these objectives. The Fair Trade label shown on certified products signals consumers that the product was produced and traded in unison with these requirements. Fairtrade is one of the many volitional sustainability standards that have emerged. These standards share some mutual overlapping goals, each with its focus and

priorities. In addition to Fair Trade, other certification standards include Organic, Rainforest Alliance, and UTZ Certified, and there are similarly notable labels for different products such as those of the Forest Stewardship Council, Marine Stewardship Council, Roundtable on Sustainable Palm Oil, and Global GAP

The specific mechanisms for achieving its goal are a combination of price negotiation guidelines and certification requirements. These are:

1) Price floor. The central characteristic of Fair Trade is the minimum price of selling a Fair Trade–certified product to a Fair Trade buyer, which is planned to cover the average costs of sustainable production and meet a widely determined living wage in the sector (set initially according to the data of the International Coffee Organization). A Fair Trade buyer agrees to pay certified producers at least the minimum price when the world price is below this price. In all scenarios, producers and traders remain free to negotiate higher prices based on quality and other attributes. Through the provision of a guaranteed minimum price for products sold as Fair Trade, the price floor is intended to reduce the risk encountered by growers. However, there is no guarantee that all coffee that meets the certification requirements and is eligible to be sold as Fair Trade at the same time is indeed sold as such. Just producing and certifying a product does not give an assurance that a buyer will purchase it as Fair Trade and provide the associated benefits and price. The relationship between the guaranteed minimum price and the market price between 1989 and 2019 is shown below.

Figure 1.1. Arabica coffee market chart



Source: (Fairtrade Foundation, 2022)

Though in recent years, the market price of coffee has usually been greater than the Fairtrade least cost, information from the value accidents of the last part of the 1990s and mid 2000s indicate that the price floor can provide important risk protection to farmers selling their coffee as Fair Trade certified.

2) Fair Trade premium. It is often referred to as community development or social premium. It is paid by the buyer to the cooperative organization additionally with the sales price. Ahead of 2008, for coffee, this premium was placed at 10 cents per pound but it's presently 20 pennies for each pound with 5 pennies set aside for improving productivity. The premium is created to take care of the associativity and democratic process that are absolute principles of the Fair-Trade philosophy. The specifics of using the premium must be decided democratically by the actual makers. Projects that are ordinarily subsidized with the Fair-Trade expense incorporate speculations made to increment rancher usefulness; interests in local area foundation like the structure of schools, wellbeing centers, and yield storage spaces; offering preparing for individuals from the local area; providing educational

scholarships; improving water treatment systems; conversion to organic production techniques, etc.

3) Stability and admittance to credit: Fair Trade purchasers consent to long haul contracts (somewhere around one year and regularly quite a while) and to give some development crop funding to make gatherings (up to 60%) whenever mentioned.

4) Working circumstances: Where laborers are available, there should be opportunity of affiliation, safe working circumstances, and wages essentially equivalent to the legitimate least or local midpoints. A few types of youngster work are not permitted.

5) Structure of institution. Farmers are allowed to put together as affiliations or cooperatives, where choices are made fairly and with a straightforward organization that can work with deals and oversee the premium paid to the association in a responsible way. For certain items, like tea, bananas, pineapples, and blossoms, bigger associations can turn out to be Fair Trade affirmed. In such bigger endeavors, boards of trustees of laborers and directors working together should be framed and fairly organized.

6) Environmental insurance: Some particular harmful chemicals are prohibited for Fair Trade production. The environmental standards are meant to ensure that the members work towards good environmental routines as an integral part of farm management by reducing or wiping out the utilization of less-alluring agrochemicals and supplanting them, where conceivable, with normal organic techniques, as well as embracing rehearses that advance the wellbeing and security of homestead families, laborers, and the local area. Makers should give essential natural reports summing up their effects on the climate. The development of hereditarily altered crops by ranchers is prohibited. (Practically, this is only applicable to a few crops for which genetically modified assortments are accessible to these ranchers, specifically cotton and rice.)

For an item to be sold under the Fair-trade mark, all entertainers in the store network including shippers and exporters-should likewise be Fair Trade affirmed. The norms are particularly designed for each crop and the different actors involved in the chain. The dominant entities in the global Fair-Trade system are Fairtrade International, which is answerable for setting and keeping up with norms for generally items, and FLO-CERT, a free accreditation organization that is responsible for reviewing and confirming makers and dealers.

To acquire the Fair-Trade affirmation, maker associations, firms or qualified ranches which is answerable for setting and keeping up with norms for generally items, and FLO-CERT, a

free accreditation organization that is responsible for reviewing and confirming makers and dealers.

To acquire the Fair-Trade affirmation, maker associations, firms or qualified ranches apply with FLO-CERT. If the application is accepted, the organization proceeds to an initial inspection process carried out by an FLO-CERT representative in the district. Assuming the base prerequisites are met, the association is given an authentication that is normally legitimate for a year and can be reestablished following re-review. During the early long stretches of Fair Trade, examination and accreditation were for nothing. In any case, starting around 2004 maker associations should pay application, introductory affirmation, and reestablishment certificate expenses.

Economic theory and Analysis/evaluation of Fairtrade

The fair-trade movement is brought about by understanding the basics of fair trade. Free market policies have brought millions of small-scale farmers into competition with industrial agriculture. Fairtrade is an international social movement and market-based approach to alternative trade claiming to help improve international trading conditions and promote sustainability for small and medium scale producers in developing nations.

International 'fair trade' organizations and businesses provide fair trade products to international consumers; certify producers, farmers, and communities who can benefit from a fair-trade model of production; and some organizations also make it their mission to use fair trade to inform the public on how they can make a difference against the consequences of globalization, exploitation, and even human trafficking. According to the Fairtrade Labeling Organization, or FLO, (an international organization that assists in setting certification standards), "fair trade is an ethical certification system and movement with a people-first approach to trade. Fairtrade offers farmers and workers in developing nations the opportunity to improve their lives and plan. For the consumer, fair trade is a lifestyle."

The fair-trade movement is guided by four primary principles that proponents claim actively work against the negative consequences of free trade and exploitation.

Fairtrade positioned itself in not being excluded from considerations of providing a quality product for a fair price. Certified fair-trade products are expected to be products that consumers want, and must be of high quality.

Fairtrade must be ecologically sustainable. Many opponents of neoliberal trade are concerned with the environmental impact of non-sustainable farming techniques.

Environmental costs of production for fair trade products must be fully incorporated into the price of the products, and producers must work toward ecological key practices such as the elimination of chemical pesticides.

Fairtrade must ensure social sustainability for the producer community. Social costs have to be integrated into the price of products, and most certification labels provide producers with what they call a social premium - or specific profits that must be used by the community for social programs. This seeks to incorporate the full cost of production into the price and allows producers greater control over the wellbeing of their community.

Finally, fair trade seeks to increase the direct relationship between producers and consumers, removing unnecessary middlemen. This does not only allow for more of the profits to go directly to the producer but also develops and raises the consciousness of the consumer that their purchases directly benefit and support the producer and their community.

These four principles go together with most certifying labels and are theoretically what drive the fair-trade movement. Some certifying organizations, such as TransFair USA also include the requirement for producers to take part in community cooperatives, connecting them with support from their surrounding community; and other requirements vary from label to label.

Criticisms of Fairtrade

Though there may be benefits to fair trade, especially in the short term, most of the humanitarian studies done among producers in the developing world conclude that fair trade fails for the long term in most cases. The reasons for “failure” vary by context, and by locale, but most researchers felt that the movement was not living up to its claims. For example:

Ø Many studies indicate that environmental regulations are too stringent and end up frustrating farmers and costing them more, leaving a smaller return than what they would receive outside of fair trade.

Ø Other studies show that many small farmers who the movement was designed to assist cannot afford to meet the required standards such as paying for organic growing methods.

Many made a point that since fair exchange's accentuation is normally on a specific item and creation strategy as esteemed by the purchaser retail market (natural chocolate, for example), it includes an inconsistent dissemination of dynamic power. This thereby suggests that the priorities of the consumer market are privileged over the interests of producers.

Ø Various studies demonstrate a failure by the movement to promote equality within the community because the movement often chooses beneficiaries and non-beneficiaries. Due

to confining certification standards, the benefits of fair-trade participation are limited to a select few in a much larger number of producers. Some studies show how fair trade has opened differences between and among gender in different communities, and between ethnically distinct communities.

Ø Due to being consumer-driven, a study observes that fair trade seeks to direct the activities of local producers to external values and perceptions, rather than build on the preferences and identities of producers themselves. In the case of some products, such as crafts, the movement is more concerned with the “look” and “type” of the product than the cultural authenticity or community’s capability to build itself up.

Ø Most research demonstrates that fair exchange ranchers will often battle with the hardships related with fair exchange naming in the desire for getting more exorbitant costs, yet without the conviction that they have a lot of command over the particulars of fair exchange trades.

Ø So, all in all, most studies show that even though fair trade fully intends to help producers in the developing world, the movement repeats, or even exacerbates, structural inequalities of the current global economy.

An anthropological approach to fair trade, whether theoretical or practical, provides critical insights needed to improve the equity and transparency of international exchange, especially considering consequences caused by globalization. Because the fair-trade movement as it is today based out of the North (developed regions) while claiming to primarily benefit the South (developing regions), those involved must begin to evaluate their policies and consider whether the current system truly reflects the needs and desires of international producers. Although fair trade intends to benefit the less powerful, it has only empowered the already powerful Northern consumer even further, and it may even highly resemble new forms of indirect exploitation and economic colonialism under the guise of development and progress.

Previous Studies on Fairtrade and its certification

Several studies have officially demonstrated the rationale of Fair Trade, finding that if shoppers esteem the idea of the creation interaction, intentional accreditations unambiguously work on total government assistance. For instance, (Podhorsky, 2010) zeroing in on natural principles, shows that in a climate with different characteristic firms, a deliberate accreditation program never diminishes shopper government assistance. Likewise, (Andrea, 2013) shows that in a two-country model of North-South trade with differentiated products, voluntary certifications improve aggregate welfare.

Several studies have tackled the question of consumers caring about whether goods are produced in a socially or environmentally responsible manner, attempting to quantify the extent to which consumers are willing to pay for responsible production. (Hertel, Scruggs, & Heidkamp, 2009) survey 258 people and observe that 75% of coffee purchasers report that they might want to pay 50 pennies extra for a pound of coffee (roughly 15% of the deals cost) assuming it was Fair Trade confirmed. Over half might want to pay \$1 more per pound. Supplementing the proof from review questions getting some information about theoretical situations is proof from field analyzes that notice genuine way of behaving. (Hainmueller, Hiscox, & Sequeira, 2011) conduct several tests in 26 stores having a place with a significant US basic food item chain. The creators arbitrarily put Fair-trade marks on mass canisters of coffee that were Fair Trade ensured. In a subsequent trial, the creators likewise arbitrarily changed the costs of the coffee. Every treatment endured a month. The creators observed that deals were 10% more prominent when the coffee was marked as Fair Trade. They likewise found that interest for more costly (and apparently greater) Fair Trade coffee was heartless toward value, which is steady with a previous finding by (Arnot C., Boxall, & Cash, 2006) for brewed coffee sold at a Canadian university. Interestingly, demand for a cheaper and lower-quality Fair Trade coffee was touchy to the cost: a 9 percent increment in cost brought about a 30 percent decrease sought after. In a subsequent trial utilizing coffee sold on eBay, (Hiscox, Broukhim, & Litwin, 2022) observe that by and large, shoppers will pay a 23 percent premium for coffee marked as Fair Trade.

In several supplementary types of research looking at Fair Trade labeling for nonfood consumer items, Michael Hiscox and different coauthors have aggregated a lot of extra proof that affirms the discoveries from (Hainmueller, Hiscox, & Sequeira, 2011). Analyzing fair work norms for candles and towels sold in an enormous retail location in New York City, Hiscox and Smyth (2011) observe that the name expanded deals by 10%, and when joined with a value markup of 10-20 percent, deals rose significantly more, in the scope of 16-33 percent. Looking at purchasers' eagerness to pay for merchandise utilizing a bartering climate on eBay (Hiscox, Broukhim, & Litwin, 2022) find that consumers paid a 45 percent premium for polo shirts labeled as being certified for fair labor standards.

Generally, the proof from these examinations shows that shoppers esteem creation that happens as per Fair Trade norms and they accept that certificate passes on sound data.

Some observational examination has been completed somewhat recently to survey the effect of confirmation on smallholder makers' vocations in the rural area of emerging nations.

(Philpott et al, 2007) show how smallholder coffee ranchers in the Chiapas good countries, Mexico, that are certified according to Fairtrade and Organic standards reap the monetary advantages of confirmation. (Poncelet, 2005) shows a positive effect of Fairtrade accreditation based on nearby cooperatives in conditions of limit building. Zeroing in on fairtrade-certified bananas in Costa Rica and Ghana and Fairtrade-certified coffee in Tanzania and Nicaragua, he reveals that the bonus received by coffee cooperatives due to certification was used effectively to improve production capacities and to implement social projects e.g. in the areas of education or gender.

(Dörr, 2009) conducted empirical studies on the impact of certification on smallholders' livelihoods in Northeast Brazil by comparing certified and non-certified smallholders that produce grapes, mango, melon, and cashew nuts. Her study shows that certified farmers receive higher net income than non-certified farmers. Certified mango and grapes farmers, for example, received an increased price per kg of 58 percent and 28 percent, respectively. There are also several empirical case studies with cogent conclusions towards certification. They tipped its hypothetical and useful limits, especially when applied in non-industrial nations' provincial settings.

(Bacon, 2005), for instance, studied 228 coffee smallholders in Northern Nicaragua and shows that even though Fairtrade and natural certificate can possibly work on the vocations of the coffee smallholders, it doesn't counterbalance different variables prompting an overall occupation decline for the smallholders.

Concentrates by (Parrilli, 2000) in Mexico and (Tiyapongpattana, 2001) in Thailand indicate that ranch entryway costs paid in Fairtrade-confirmed creation frameworks are not higher than those in traditional creation frameworks. (Giovannucci and Potts, 2008) show that the viability and effect of confirmation on the social, monetary, and natural execution of smallholder makers rely exceptionally upon the nearby setting which decides the execution, implementation, and observing of confirmation plans.

3.1. Coffee In Ethiopia

Coffee production has an important place in the Ethiopian economy. Coffee is Ethiopia's most important export crop, accounting for 22% of Ethiopia's commodity exports in 2013/14 (NBE, 2018). Ethiopia as the largest coffee exporter in Africa, accounts for 3% of the global coffee trade (ICO, 2014). It is estimated that coffee is cultivated by over 4 million primarily

smallholder farming households in Ethiopia, and comprises an important source of livelihood for a large number of these often poor producers (CSA, 2013).

Coffee production and production systems

The major coffee-producing areas in Ethiopia are west and southwest, southern, eastern, and central regions (Melkamu, 2015). Based on the board level, vegetation, underlying intricacy, and agronomic practices, coffee creation frameworks in Ethiopia can be arranged into four; to be specific: woods coffee (FC), semi-oversaw woodland coffee (SFC), garden coffee (GC), and estate (Tadesse, 2015) (Tesfu, 2012)

Timberland Coffee: The woodland coffee framework utilizes wild stands for

Forest Coffee: The forest coffee system uses wild stands of coffee, which exists naturally within the forest, and the farmer undertakes minimal management and intervention (Moat, J. et al., 2017). The neighborhood networks living in and around the woods just pick the wild coffee berries from normally developing coffee plants and there is no administration to further develop coffee usefulness. The floristic piece, variety, and construction are near the normal circumstance, with minimal human mediation. The main administration practice in the timberland framework is access clearing to permit development in the backwoods during collecting time. (Tadesse, 2015). According to (Labouisse, Bayetta, Surendra, K., & Bertrand, 2018) it incorporates basic coffee assembling and woodland creation where coffee trees are just secured and tended for helpful picking. This framework is found in southeastern and southwestern pieces of the country (chiefly in regions like Bale, Bench-Maji, Illubabor, Kafa, Jimma, Shaka, and West Wollega) (Boansi and Crentsil, 2013). These regions are the focuses of beginning of *Coffea Arabica*. This framework represents around 10% of the all out coffee creation of the nation (Melkamu, 2015)

Semi-Forest Coffee: Semi-woodland coffee is more concentrated, with expanded cultivating intercessions (for example diminishing of trees, understory leeway and weed cutting, and planting of coffee seedlings) (Moat, J. et al., 2017). Ranchers get timberland land for coffee homesteads, and afterward slim and choose the woods trees to guarantee both sufficient daylight and appropriate shade for the coffee trees (Melkamu, 2015). It is a kind of coffee creation framework where promptly the timberland coffee framework is changed to a semi-oversaw woodland coffee framework through the decrease of plant structure, variety, and thickness. This is the predominant creation framework in southwestern Ethiopia (primarily Bench-Maji, Illubabor, Jimma, Kafa, Shaka, and Wollega) and the Bale

Mountains of southeastern Ethiopia (Tadesse, 2015). This framework represents around 35% of the absolute coffee creation of the nation (Tesfu, 2012).

Garden Coffee is a further advance in the development interaction. Seedlings are taken from timberland coffee manors and relocated nearer to ranchers' abodes. In this framework, coffee is filled in smallholdings under a couple of overhanging trees typically joined with different harvests and natural product trees (Tesfu, 2012). It represents around half of public creation and is situated close to homes of producers. It is planted at low densities and is generally treated with natural materials (Boansi and Crentsil, 2013). Topographically, this coffee creation framework is especially found in the southern and eastern and some in southwestern pieces of the nation; and explicitly in Gedeo, Guji, Hararghe, Jimma, Sidama, Wollega, and a few different spots (Tadesse, 2015).

Estate Coffee: Plantation coffee is developed on ranches claimed by the state and on a few very much overseen smallholders' coffee ranches. In this framework, suggested agronomic practices like superior seedlings, dispersing, appropriate mulching, manuring, weeding, conceal guideline and pruning are drilled (Melkamu, 2015). This area incorporates a couple of enormous private and state cultivates essentially situated in the southwest, as well as numerous smallholder ranches spread all around the coffee developing regions. It represents around 10% of public creation (Labouisse, Bayetta, Surendra, K., and Bertrand, 2018).

3.1.1. Coffee Production In Ethiopia

Coffee is propagated by over 4 million small holder farmers. Farmers engaged in growing and producing stimulant crops such as coffee are greater in number than those growing fruits (CSA, 2018). It utilizes 15 million individuals or about 15% of the country's populace at various focuses along the worth chain. Almost 95% is developed on little plots, by and large not exactly a large portion of a hectare. Ethiopia is the world's 6th biggest coffee maker, representing 4% of creation. It is additionally the biggest maker in Africa, representing around 40% of continental production (Francom, 2018).

3.1.2. Opportunities of coffee production in Ethiopia

Genetic diversity and favorable Environments, Agroforestry based production system, already known brands in the world market, trademarked and licensed benefit to all, Modern Marketing System (ECX), Encouraging policy, and coffee price are among major opportunities for coffee production in Ethiopia (Tesfu, 2012). The Ethiopian coffee sector has bright prospects. The country has a reasonable height, ideal temperature, low work costs, and ripe soil. It can reasonably create and supply fine specially prepared coffee with the capability of delivering all coffee sorts of the different world coffee developing starting points (Jose, 2012). Different open doors for coffee creation in Ethiopia are; high public and worldwide interest for the item, expanding revenue of private areas with high venture potential, high help by both local and central states (Berhanu, 2017). The Ethiopian Coffee and Tea Development and Marketing Authority has been restored according to the declaration embraced by the House of Peoples' Representatives in December 2015 to help the nation's advantage in the area. The Authority has orders and obligations; to reinforce present-day augmentation administrations to accomplish a more elevated level of creativity and expanded usefulness, to layout quality based, successful, and productive promoting frameworks, and to help, oversee, and directing of coffee handling ventures (Zelalem, 2016). Ethiopian coffee is top in both colour and taste. To maintain these qualities, there is a well-established and linked structure that connects coffee farmers, processing-plant owners, governmental organizations, and coffee processing (Melkamu, 2015).

Production constraints of coffee in Ethiopia

Coffee production in Ethiopia is challenged by a lack of competitiveness, lack of infrastructure, adequate access to services, low-value addition, and adequate technology transfer and research (Jose, 2012). (Moat, J. et al., 2017) reported that the other challenge of coffee production in Ethiopia is the variability of weather patterns, such as rainfall variability on the onset of the wet season, an extension of the dry season, and more extreme (drier and hotter).

3.2. Coffee export

Coffee, Ethiopia's biggest product crop, is the foundation of the Ethiopian economy. Ethiopia has not yet completely took advantage of its situation as the maker of the absolute best coffees the world .Coffee, Ethiopia's biggest product crop, is the foundation of the Ethiopian

economy. Ethiopia has not yet completely taken advantage of its situation as the maker of the absolute best coffees in the world. The coffee area is exceptionally subject to global costs and impacted by the design and functions of the world coffee market. Ethiopia is one of the nations most affected by the crisis in world coffee prices (Nicholas, 2007). Despite the extreme cost stuns that have been shaking its worth chain, coffee stays a basic part of the Ethiopian economy and product. By and by, the delayed cost decline has significantly debilitated its creation premise and prospects, so proper monetary administrations are desperately expected to support provincial networks (Bastin & Matteucci, 2007).

Ethiopia produces and exports one of the best highland coffees in the world (Samuel & Eva, 2008). Total earnings from goods exported grew by 3% in 2018 over the same quarter of the previous year on account of the rise in export earnings from Coffee (19.1%), Oilseeds (4.9%), Leather and Leather products (27.7%), Fruits and Vegetables (16%), Meat and Meat products (10.1%), Flower (8.1%), Electricity (23.8%) and other exports (35.1%). Earnings from coffee picked up 19.1% in 2018 as compared to the previous year's same quarter and reached USD 215.6 million on account of a 16.5% rise in export volume and a 2.2% increase in international price. As a result, the share of coffee in total merchandise export earnings increased to 31.8% from 27.5% a year earlier (NBE, 2018). Countries such as Germany, France, Italy, Belgium, Sweden, Norway, Finland, Denmark, the UK, Switzerland, the USA, Japan, Saudi Arabia, Canada, Taiwan, South Korea, Australia, and South Africa are traditional buyers of Ethiopian coffee (Melkamu, 2015). Agricultural exports' share of total exports was declined from 86% in 2013/14 to 84% in 2016/17. However, coffee exports' share of total exports was increased from 30% in 2013/14 to 33% in 2016/17.

Coffee consumption

Ethiopia isn't just a significant maker and exporter of coffee however, the most noteworthy customer also in Africa. The share of consumption in total production in the immediate years following the initiation of the reform was somewhat lower, diminishing from as high as 65% in 1987 to 25% in 2003. The somewhat more modest portion of homegrown utilization underway in the long early stretches of the change could be ascribed to expansions in trades seen in the country during that period because of expansions in the number of exporters following the progression of inward showcasing. It, nonetheless, has taken on a rising pattern since the year 2004 (Boansi & Crentsil, 2013). Essentially, (Francom, 2018) detailed that

Coffee utilization in Ethiopia is developing, though leisurely, as the populace extends. In 2015/16, complete creation was 6.4 million 60 kg packs, of which 3.7 million were consumed inside Ethiopia (Moat, J. et al., 2017). An interesting new development in major Ethiopian cities regarding coffee consumption is the emergence of small roadside stalls selling coffee to passerby customers. The small roadside stalls traditionally serve coffee. They have arisen and prospered in Ethiopia's significant towns, becoming extremely well known among coffee buyers who are baffled by the heightening cost of coffee and the falling apart nature of coffee served in bistros and cafés. Not at all like customary bistros, the little side of the road stalls don't pay either VAT or house rents, making their expense of serving coffee much lower and more cutthroat than the ordinary coffeehouses do not pay either VAT or house rents, making their expense of serving coffee much lower and more cutthroat than the ordinary coffeehouses (Alemayehu, 2014).

Coffee in the nearby market is majorly coffee assigned for send out through the Ethiopian Commodity Exchange (ECX) yet dismissed for neglecting to satisfy ECX's quality guidelines. However, nearby coffee cost is typically more prominent than global Coffee arabica costs (Alemayehu, 2014). As per (Getachew, 2011), blending coffee in with other grain harvests, for example, scarcely is becoming usual in the country. Coffee plays a vital role in both the cultural and social life of the Ethiopian community. Among coffee-producing countries in the world, Ethiopia is the first country to the utilization of coffee. From the 200,000-250,000 tons of normal yearly creation, around half is consumed in the country. Readiness and drinking of the coffee is an exceptional culture in Ethiopia; the coffee service. Coffee isn't smashed alone. It is a social movement to be imparted to other people. Imparting coffee to others implies you find a sense of contentment with them and develops local area and kinship. (Melkamu, 2015)

3.2.1. Ethiopia coffee marketing chain

Marketing is a social and managerial procedure through which individuals and organizations acquire what they need and want by creating and exchanging value with others. In a business context, marketing involves building profitable, valuable exchange relationships with customers. Hence, marketing is the process by which organizations make an incentive for clients and construct solid client connections to acquire esteem from clients consequently (Armstrong & Kotler, 2015).

In Ethiopia, coffee production and marketing were managed by the government through the Ministry of Coffee and Tea Development before the year 1992. During that period, coffee was sold by makers at super durable costs with fixed times. The tremendous greater part of the harvest was constrained by the Ethiopian Coffee Marketing Corporation (ECMC). After the fall of the Derg regime in 1991, the transitional government announced measures to promote a market economy, including coffee sector liberalization. This was started as a way of fostering production through increasing producer prices and maximizing export earnings of coffee. Since 1999 Ethiopian coffee has been accessible when some producers were decided to contract to bypass the auction system of the government. Certified farmers who are members of a cooperative can directly sell their coffee to western importers (Celia et al., 2004).

The government of Ethiopia founded Ethiopian Commodity Exchange (ECX) association in 2008, the first of its sort in Africa, which targets making the advertising of horticultural products more effective and efficient. With the foundation of ECX, the public authority has given an coffee quality and showcasing Proclamation no. 602/2008, which has been implemented since August 2008. The Proclamation commands all coffees be exchanged through ECX. It bars private gatherers and connections providers (Akrabies) to exchange straightforwardly with ranchers at first-level coffee market centres and with ECX (Alemseged & Getaneh, 2012).

The major targets of the modern coffee marketing system in Ethiopia is to competitively and efficiently produce quality coffee for the international market, in creating a short supply chain of coffee and appropriate payment system, to make a fast and cost-effective coffee showcasing framework, to advance limited scope ranchers' interest, to be solid by giving convenient and exact data, building confidence between partners of trade and controlling illegal activities. Presently, there are two stages of transaction centres in the marketing system: primary level (primary coffee market centre) and secondary level (central market auction centre), i.e., the Ethiopian Commodity Exchange (ECEA, 2013).

Coffee Marketing Chain

According to the Ministry of Trade (2012), three coffee marketing chains in Ethiopia gives options for the producers to supply their product to the market. These are the essential level, Ethiopian Commodity Exchange, and worldwide coffee market chains.

Primary Level Coffee Transaction Centers (PLCTC): Located close coffee farms where coffee farmers and suppliers buy and sell coffee. Farmers can take their products to the primary market to sell to suppliers (Aqrabis) and primary cooperatives. Nowadays, there are about 1903 primary coffee marketing centres in the country.

Ethiopian Commodity Exchange (ECX): This is the auxiliary level of the chain where coffee is executed. On the off chance that ranchers have beyond what 30 sacks of coffee, they can straightforwardly supply the coffee to the ECX. The elements of ECX are to get all appearance coffee from providers, makers, and cooperatives; attempt appearance coffee liquoring, reviewing, and distribution center administrations; complete the coffee exchange between suppliers and exporters; and submission of sold coffee to exporters. There are presently ECX warehouses located at eight different places in the country, which are Dire Dawa, Hawass, Dilla, Wollayita Sodo, Bonga, Jimma, Bedele, and Gimbi. Trading is carried out by an open clamor at the ECX in Addis Ababa.

International Coffee Market: exporters offer coffee to global merchants at this chain level. Green coffee is exported only by Ethiopian citizens. Coffee can be exported to the global market in three ways. The first is makers supply their coffee through the essential market to providers (Aqrabis) or straightforwardly supply to ECX, and exporters purchase from Aqrabis at ECX and afterward offer to the worldwide market. The second is makers supply coffee to their essential cooperatives at essential coffee exchange focuses, essential cooperatives to agreeable associations, helpful associations, straightforwardly offer to the international market. The last way is for producers directly supply to the international market.

Performance of Coffee Export

Coffee is as yet the significant commodity result of Ethiopia. It offers more than 25% of the unfamiliar trade income. All things considered, 40% of the all out creation was sent out throughout the previous three years. Lately the part of all out trade profit has gradually declined as a result of the increment in other export commodities such as flowers, Khat, gold, textiles, and leather products (Abu & Teddy, 2013).

Ethiopian coffee send out has expanded over the most recent five years both in volume and worth. The volume has expanded from 133,993 tons in the crop year 2008/09 to 199,103 tons in the crop year 2012/13. The export volume has increased considerably with an yearly rate development pace of 7.9%, and the worth has expanded from 375.8 million USD to 746.4 million USD in a similar period displaying a yearly rate development pace of 13.7%.

The Ethiopian coffee traded to the global market has expanded in volume in the advertising year of 2012/13. Yet, there is no critical augmentation in the income procured from this huge volume of coffee sends out due to the discounted coffee cost in the worldwide market (Abu and Teddy, 2013).

The primary justification for the expanded coffee trades volume in the showcasing year of 2011/12 is the disposal of the new mandate by the public authority of Ethiopia, which is presented in November 2011. The order requires coffee exporters not to utilize the customary 60 kg jute sacks rather transport coffee in mass compartments. The customary 60 kg jute packs are typically liked by the Coffee merchants since the sacks benefit from preserving the identity of Ethiopian coffee. Furthermore, there is a lack of financial and material capacity of the coffee traders to export coffee in bulk containers. Therefore, the directive hurt the volume of exported coffee since many coffee traders ceased exporting coffee and put bulky stocks in their warehouses.

Coffee Export Markets Spots

Ethiopia is traded green coffee to in excess of 50 nations which incorporate the USA, Europe, Australia, Asia, Africa, and the Middle East. As indicated by the Ministry of Trade information (2013), Ethiopian coffees promoted to 25 European nations that represented 53% of all out coffee send out volume with around 52% in esteem throughout the course of recent years (2011/12 - 2012/13). Out of this, 20 European Union (EU) nations represented almost 98% of product volume and worth. The rest non - the European Union nations just represented just 2.3 percent in volume and 2.1 percent in esteem.

The Ethiopian Coffee Sector Challenges and Opportunities

Coffee ranchers all around the world face various difficulties connecting with the accessibility, cost, and nature of work, land, water, inputs, admittance to sensible creation credit, and legitimate specialized exhortation in light of illnesses and irritations. Ethiopia has gained notoriety for great coffee because of its marked assortments of coffee. However, a large portion of the coffee ranchers in Ethiopia are not equipped for getting the advantages associated with the creation and promotion of the best quality item. There is creation, handling, stockpiling, and working of homegrown and global market-related constraints for this fact (ODI, 2009).

Irrespective of the high potential for the aggregate creation of coffee in Ethiopia, the normal yield per hectare stays exceptionally low at 0.72 measurement tons per hectare (Ministry of

Trade, 2013). (Abu & Teddy, 2013) showed three major factors for the basis of low coffee production. First, there is a direct and rising contest between Khat (*Cata edulis*), a plant with gentle opiate impacts, with coffee for farmlands in various regions of the country, especially in the Hararge district. Khat is picked by numerous ranchers since it is more productive and brings predictable pay during the year. Second, in the homestead, the executives' arrangement of coffee and the agronomic practices in Ethiopia are conventional. Also, coffee delivering ranchers don't get sufficient expansion administrations. In conclusion, there is no specific foundation that offers broad help for the creation of coffee in the country.

According to Taye (Taye, 2013), in Ethiopia, there are a few credited factors for the low degree of normal creation and pay of coffee by the world norm. These include insufficient credit and distribution of input devices for coffee growing farmers, the principal utilization of moderate cultivation and handling, as well as unchanged neighbourhood coffee landrace rehearses, which thusly very blocks the public creation and usefulness of coffee delivered by limited scope ranchers in the country.

Gathering, post-collect capacity, and handling are vital in assuring the nature of coffee. Non-specific picking practice is normal by smallholder ranches which contribute to poor quality coffee regardless of whether it is a wet or dry process—in addition, arranging and evaluating coffee berries before additional handling is a training that is for some time forgotten among most smallholders on account of low net profit, the significant expense of work, and absence of motivating forces for high-quality coffees. Most of the coffee-growing farmers in Ethiopia have traditional and temporary storages, which have negative effects to maximize the quality of coffee, with implications for the price, profit, and income (ODI, 2009).

The conventional coffee value chain in Ethiopia includes countless delegates and is, to a great extent, state-controlled. Licenses are expected for each capacity in the market chain (Petit, 2007). The Ethiopian government giving licenses for the direct commodity has changed as of late. The previous framework was presented to lease chasing and political control and didn't offer an actuation for quality. Coffee conveyances for trade markets have unfavourably been impacted by an absence of value impetuses to ranchers, change of creation supply because of climatic varieties, and unsteady costs (ECX, 2010).

As per the Ministry of Agriculture (2013), the Ethiopian coffee area faces relentless difficulties. The significant ones incorporate very low-quality control, the deficiency of a strong coffee seed supply system, inadequate consideration of the input credit provision for efficiency and quality enhancement, and a lack of strong vision and path to help the coffee

area. Restricted utilization of upgraded innovation; land corruption, and populace pressure; restricted admittance to information sources like manure, seeds, credit, and water system; and significant expenses of value coffee creation and handling are additionally referenced as the significant difficulties of the coffee area of the nation (Taye, 2013).

As indicated by Jim and Ruth (2012), the difficulties in the coffee area in Ethiopia looked pulverizing. They called attention to the requirements as low and conflicting coffee quality because of unfortunate handling; guideline of commodity deals through a public closeout that blended coffees better places into a solitary part and prohibited measuring before deals; coffee cooperatives were, in fact, institutionally powerless; advance capitals for creation, handling and showcasing interests in were missing; and absence of worldwide market request understanding prompts centre around amount instead of value.

Notwithstanding the difficulties, Ethiopia has various opportunities in its coffee sector. There is fertile soil, optimum temperatures, sufficient rainfall, and a reasonable height for coffee creation. It has different agro-biology and climatic circumstances, hereditary biodiversity, and sole unmistakable attributes of value coffee. Fine specially prepared coffee can be delivered and provided economically, creating possibly every one of the different kinds of coffee in world coffee developing starting points. Ethiopia has a common advantage in natural coffee markets as more than 90% of coffee creation is truly natural (Daniel & Mekuria, 2004).

Additionally, Ethiopia is the main maker of normal woodland coffee Arabica, giving degrees to conceal developed coffees, for example, through the accreditation of Rainforest Alliance. The public authority's choice to permit cooperatives to straightforwardly send out is critical in light of the fact that it opened a possibly new channel of the value chain for the export of coffee (USAID, 2010). A positive image of the country as the origin of coffee and strong indigenous coffee culture, a well-established coffee brand, prospective for expansion of volume and quality coffee due to the existence of adequate land and low-cost labour, the high commitment of government and a favourable strategy climate are among the significant chances of the coffee area in Ethiopia (Ministry of Trade, 2013).

3.2.2. Ethiopia commodity exchange

The ECX is characterized as a commercial center 'where purchasers and venders meet up to exchange, guaranteed of value, amount, installment, and conveyance (ECX, 2010). The trade has an exchanging floor Addis Ababa, eight (8) distribution center conveyance areas, and 21

electronic cost tickers in significant market towns. It plans to give an exchanging ground to sesame, haricot beans, maize, wheat, and coffee. The ECX should ensure:

- 1) Market integrity: ensuring the item grade and amount and working an arrangement of day to day clearing and settling of agreements
- 2) Efficient coordination: of purchasers dealers and normalized agreements
- 3) Market Transparency: dispersing market data in real-time to all market participants
- 4) Managed risk: offering contracts for future delivery, providing sellers and buyers with a way to hedge against price risk (Gabre-Madhin, 2007).

The ECX is a state-claimed public-private association undertaking laid out as a 'demutualized corporate element with clear detachment of proprietorship, enrollment, and the executives and represented by a Board of Directors established by applicable public organizations and ECX private individuals; it works through the offer of participation seats, which are exclusive by wholesalers, cooperatives, exporters, processors, food agencies and even the EGTE (ECX, 2010).

By regulation, the ECX has turned into a vital establishment for the coffee area, giving a connection to:

- a) An incorporated warehousing and receipt framework with quality principles that permits the item to be moved solely after it's sold;
- b) An information system that disseminates market information to all market actors;
- c) A trading platform that guarantees payment against delivery through an electronic system for clearance and settlement in collaboration with partner banks (Alemu & Meijerink, 2010). Its advertisers guarantee these elements comprise answers for the bottlenecks that make high exchange expenses and coordination gambles.

Enrollment is gained through the acquisition of a Membership Seat - for example a long-lasting and adaptable right to exchange the trade. Full individuals are permitted to exchange any product, while restricted individuals (normally more modest entertainers) can exchange just for restricted periods, explicit items, and in restricted positions as purchasers or dealers. Moreover, each sort of part can be a Trading Member (TM), exchanging their account, or an Intermediary Member (IM), exchanging for oneself or for clients (ECX, 2010). Since interest for enrollment is high, seats are being sold every once in a while; full participation is at present shut yet might be accessible again soon, as indicated by the ECEA. The enrollment cost changes relying upon the sort of part; it was 50,000 Birr [circa USD 3.760(1 Birr = 13USD)] in 2009 but has since increased. According to (Alemu & Meijerink, 2010),

“the OCFCU purchased a seat for 200.000 Birr, and one money manager in the coffee business was accounted for to have paid 3.3 million Birr before the finish of 2009". Individuals are likewise required a base total assets of 500.000 Birr (around USD38.000) for TMs and 1.000.000 (around USD75.000) Birr for IMs to guarantee moment installment of the agreements. Resultantly, current participation conditions favor deeply grounded dealers who can satisfy the previously mentioned monetary necessities. Ranchers can't turn out to be immediate dealers at the ECX; probably, they are addressed by part helpful associations. Clients are normally little private merchants or dealers without part situates instead of individual or coordinated ranchers.

Exchanging happens through 'open-cry' offering in which purchasers and merchants utilize their hands to arrange costs and amounts; bargains are fixed through a conflict of palms' (ECX, 2010). Freedom and settlement of regular exchanges occur through the data framework. As per ECX, this guarantees the installment to the provider happens in 24 hours or less. Regardless, a few exporters guarantee that albeit the ideal opportunity for financial exchanges has diminished, the conveyance season of the genuine item has expanded because of deficient foundation at the territorial distribution centers and transportation administrations.

One of the principle challenges for the ECX is OCFCU purchased a seat for 200.000 Birr, and one finance manager in the coffee business was accounted for to have paid 3.3 million Birr before the finish of 2009". Individuals are likewise required a base total assets of 500.000 Birr (around USD38.000) for TMs and 1.000.000 (around USD75.000) Birr for IMs to ensure instant payment of the contracts. Resultantly, current membership conditions favour well-established traders who can fulfil the abovementioned financial requirements. Ranchers can't turn out to be immediate dealers at the ECX; probably, they are addressed by part agreeable associations. Clients are typically little private dealers or merchants without part situates as opposed to individual or coordinated ranchers.

Exchanging happens through 'open-cry' offering in which purchasers and merchants utilize their hands to arrange costs and amounts; bargains are fixed through a conflict of palms' (ECX, 2010). Freedom and settlement of ordinary exchanges happen through the data framework. As per ECX, this guarantees the installment to the provider happens in 24 hours or less. Regardless, a few exporters guarantee that albeit the ideal opportunity for money related exchanges has diminished, the conveyance season of the real item has expanded

because of lacking framework at the provincial stockrooms and transportation administrations.

One of the primary difficulties for the ECX is of guaranteeing coffee traceability for speciality, fair trade, and organic markets. This is currently being addressed through the Direct Specialty Trade (DST), a new platform created by the ECX through which producers of speciality coffee are supposed to transact directly with international buyers. The DST works through bidding sessions in which small farmer cooperatives and commercial growers may deposit speciality-grade coffees at the ECX warehouses. Farmers are supposed to receive a minimum of 85% of the final price (ECX, 2010).

Another step in responding to criticism about traceability was the agreement signed with the Specialty Coffees Association of America (SCAA) aimed at “developing a speciality coffee strategy which protects the mutual interests of the Ethiopian Coffee sector and speciality coffee buyers” (ECX, 2010).

4. THE COOPERATIVE UNIONS

Cooperative unions work as exporters developing interlinks between remote producers and buyers, even foreign buyers, by facilitating organic and fair trade certifications (Petit, 2007). Since 2001, unions can bypass the auction and exported coffee directly as the first alternative coffee value chain parallel to the conventional market chain. Since August 2008, all producers can export directly. That generated controversy about the role of unions since producers don't need to pass through their channels anymore. But small-scale farmers are still following this way because they are unable to find export markets, even the better-off ones. Among the four main Ethiopian unions (Oromia Coffee Farmers Cooperative Union, Sidama Coffee Farmers Cooperative Union, Yirgacheffe Coffee Farmers Cooperative Union, and Kaffa Forest Coffee Farmers Cooperative Union), the Oromia Coffee Farmers Cooperative Union appears as the most dynamic. Coffee produced in Limu Kosa and the whole *Limu region* is marketed by this union and by another recent union: *Limu Inara Farmers Multi-purpose Cooperative Union* based in Limu Genet, which net covers the two ex-Limu *awarajas* (now four *woredas*: Limu Kosa, Limu Seka, Chore Botor and Nono Benja).

Coffee Certification in Ethiopia is basically attempted inside helpful frameworks being generally established in neighborhood Agricultural Service Cooperatives founded in the 1970s by the then military Derg government. Since the 1990s, the decision government in Ethiopia, the EPRDF-drove government, advanced the restructuring of cooperatives in the coffee sector and the formation of cooperative coffee unions as umbrella associations. Moreover, based on the effort of the existing government, in Ethiopia till the end of 2011, there were 41,983 primary cooperatives, which had 2,714,760,176 birrs per capita, and 278 cooperatives unions with a total capital of 1,373,602,629 have been established at the government level (FAO, 2012). Simultaneously, in Oromia Regional state, 11,321 essential cooperatives, 113 cooperatives associations, and two cooperatives federations with working capital of; 1,021,146,701, 975689818, and 25,170,576 respectively have been organized (Tefera & Mulat, 2011)).

4.1. Oromia coffee farmers' cooperative union (ocfcu)

The Oromia Coffee Farmers' Cooperative Union (OCFCU) is a smallholder farmer-owned cooperative union based in the Oromia region of the south, central and west Ethiopia. Coffee accounts for approximately 32% of the value of all merchandise exports (Mohan, Gemech,

Reeves, & Struthers, 2016), and Oromia accounts for more than 65% of the country's total coffee growing lands. (Meskela & Teshome, 2014). Besides, Oromia is the locale where coffee originally began (Meskela & Teshome, 2014); (Bastin & Matteucci, 2007); (Wright, Zeltmann, & Griffin, 2017).

The region is characterized by its unique native vegetation and tropical climate conducive to coffee bean growth. OCFCU is democratic, member's owned business operating under principles of International Cooperative Alliance and Fair trade (Meskela & Teshome, 2014) and the Union plays a central role in the Ethiopian coffee marketing chain (Gemech, 2005). The individuals from OCFCU develop, interaction, and supply natural Arabica coffee for send out.

The OCFCU was laid out on 1 June 1999 by thirty-four (34) cooperatives representing approximately twenty-two thousand members with US\$90,000 in the capital. The Union began via preparing ranchers, agrarian staff, helpful advertisers, and government authorities in agreeable standards for quite a long time (Meskela & Teshome, 2014). Introductory products added up to 72 metric tons and deals of US\$130,000. Starting at 2020, the OCFCU had 400 and five (405) cooperatives representing over four-hundred thousand members with capital exceeding US\$20 million (Samuel, G., 2019). Furthermore, exports had developed to 7,000 metric tons with deals surpassing \$40 million. Already, the Union would work with the trade among ranchers and neighborhood coffee roasters who might buy crude coffee beans (Holden, 2015). In July 2018, OCFCU contributed what might be compared to more than USD\$1.5 million to fabricate its first coffee cooking and bundling complex at Gelan Town in Oromia Regional State. The plant was finished and begun creation in February 2020 to roast, grind and package the coffee for local use (Samuel, 2019).

The OCFCU states their vision for the Union is that they "seek to see helpful social orders who firmly arise as the driving force of improvement in rustic and metropolitan settings to accomplish change".

Directed by the standards of the International Cooperative Alliance, the essential mission of the Union is to diminish exchange costs through the help of direct deals of coffee. The immediate deal/product of coffee sees the by-passing of closeouts and disposal of go-betweens deals through sellers like coffee authorities, providers, and exporters; along these lines, inferring more noteworthy benefit which is rewarded ranchers through profits. This has the ensuing point of attempting to take care of the issue of deferral in installment from the exporters. There are six focus objectives the union has:

- Improve farmers' incomes by exporting their coffee directly.
- Improve the quality and productivity of Ethiopian coffee.
- Improve the quality of services to member farmers and clients.
- Improve the social conditions of farmers.
- Improve the sustainability of the local coffee industry.
- Regulate and stabilize the local market.

The OCFCU appropriates six natural Arabica coffee beans. Oromia offers regular (un-
endlessly washed coffee beans. These coffee beans come from six areas of Oromia:

Harar: Natural coffee. Medium to light corrosiveness, full-body, and strong mocha flavour
with blueberry notes.

Jimma: Natural coffee. An even cup, medium sharpness, and body with particular winy
flavor.

Limu: Washed coffee. An even cup, medium sharpness, and body with particular winy
flavor.

Nekemte: Natural and washed coffee. Great sharpness, medium body with a wild fruity
completion.

Sidamo: Natural and washed coffee. Splendid corrosiveness, medium body with zesty and
citrus flavors.

Yirgacheffe: Natural and washed coffee. Splendid acidity, medium body checked jasmine
and lemon flavors

In addition to their mission and objectives, the OCFCU realized the significance of the
commodity market and began building an immediate association between little landholders
developing coffee and worldwide coffee markets (Meskela and Teshome, 2014). Starting at
2014, trade objections incorporate Australia, France, Germany, Hong Kong, Japan, the
Netherlands, Scandinavia, the United Kingdom, the United States, and that's just the
beginning. Starting at 2014, the Union was Ethiopia's biggest exporter of natural coffee and
second-largest in Fairtrade coffee exports in the world (Meskela & Teshome, 2014).

Since the coffee market is composed of more sellers (farmers) than buyers, buyers hold
considerable power in trade and price determination (Wright, Zeltmann & Griffin 2017).
Consequently, cooperatives have been considered as organizations playing significant

socioeconomic roles by reducing transactions costs and increasing the bargaining power of suppliers (Mojo, Fischer & Degefa, 2017). The Union has had the option to lessen the quantity of delegates between coffee producers and the commodity market, altogether expanding the portion of the worth added chain. The Union has hence expanded the haggling force of ranchers and procured economies of scale by turning out to be enormous, and economies of degree by offering different coffee assortments (Meskela and Teshome, 2014). Moreover, cooperatives further develop neediness in agricultural nations and permit the opportunities for money age from work open doors (Getnet & Anullo, 2012). By their objective of improving farmers' incomes, the Union disburses seventy percent of profits to cooperatives and their members through dividends (Meskela & Teshome, 2014). Starting at 2014, \$3 million in profits had been paid to ranchers. Through their victories, the Union is currently ready to utilize 2,000 occasional and extremely durable workers (Meskela and Teshome, 2014).

The Union has gotten a few honors and been perceived as a transcendent Arabica coffee bean maker. In 2000, OCFCU tests were appraised as among the best on the planet by broiling houses at the Speciality Coffee Association of America gathering. At the 2012 Coffee of the Year Competition, OCFCU coffee was positioned first out of 250 distinct coffees (Meskela & Teshome, 2014). Furthermore, The OCFCU has numerous certifications, including Fairtrade, organic, UTZ, and Rainforest Alliance certified coffees. The four hundred and five cooperatives within OCFCU operate under the Fairtrade principles. In 2002, the first cooperative was certified Fairtrade, and as of 2020, forty-eight cooperatives are fair trade certified (Meskela & Teshome, 2014).

With financial turn of events, the Union has carried critical social advantages to individuals and neighborhood partners; these incorporate superior framework and administrations through building streets, storage spaces, scaffolds, centers, and schools in the nearby networks. OCFCU likewise offers admittance to banking and credit administrations, coffee quality control preparing, training, flour factories, and local area centers, among others for individuals (Meskela and Teshome, 2014).

Coffee crops are altogether impacted by environment unpredictability. As illnesses and nuisances become more predominant, temperatures climb and examples of precipitation become more unstable, it becomes more enthusiastically to develop coffee effectively. The size of landholding by farming families is heterogeneous, and some communities are more vulnerable than others to climate volatility. Reasonable cultivating has been a staple of

Ethiopian coffee cultivating for ages, and most coffee is developed under conceal and is bird-friendly (Meskela & Teshome, 2014). In 2014, OCFCU joined with a roasting house in the Netherlands to eradicate the dependence on wood for family use and produce carbon-nonpartisan coffee from homestead to cup. Reasonable cultivating has been a staple of Ethiopian coffee cultivating for ages, and most coffee is developed under conceal and is By the plan, farmers are incentivized to take part in the plan with extra installments of USD\$25, and cooking ovens are being appropriated to families so they will quit involving wood in their cooking needs. The decrease of carbon dioxide with the new ovens contrasted with cooking over an open fire ultimately depends on 70%, and it is assessed that the venture will produce more than 30,000 carbon credits. The Fairtrade premium from the carbon credits goes toward projects which will improve networks outfitted to manage the impacts of environment unpredictability (Meskela and Teshome, 2014)

One more worry for OCFCU ranchers is the maturing of coffee trees. The coffee tree can take more time to five years to develop, and in this way, serious work is expected to carry the tree to development and harvest benefits from legitimate tree advancement (Wright, Zeltmann, & Griffin, 2017). Moreover, when the harvest is as of now not beneficial, it is hard to clear the land to establish another yield to recuperate any misfortunes (Wright, Zeltmann, & Griffin, 2017) (Pendergrast, 2019). Previously, agronomic improvement was invigorated by interest in nearby tree manors related to the European Union. This organization finished during the 1980s, and there has been deficient interest in agronomic advancement since.

A fundamental gamble looked by ranchers is coffee cost instability. Coffee is the most available kind of revenue for unfortunate smallholder Ethiopian ranchers (Worako, Jordaan, and Van Schalkwyk, 2011). Notwithstanding, coffee costs, being a ware, are innately more unstable than modern items (Gemech, 2005). Also, since Ethiopian ranchers are cost takers, changes on the planet creation and costs of coffee straightforwardly and fundamentally influence Ethiopian coffee costs and, accordingly, ranchers' benefits (Worako, Jordaan, and Van Schalkwyk, 2011). Additionally, when coffee costs are low, numerous ranchers experience the ill effects of insufficient pay and, accordingly hunger (Bastin and Matteucci, 2007). Beforehand, in the lean time frame going before collect (June to September), ranchers would acquire at exorbitant loan costs from private banks to remain alive and work on their cultivating practices and gathers. However, in 2005, the Union implemented its financial services through the Cooperative Bank of Oromia. The organization provides pre-harvest

financing and loan advances to 70% of members to ensure crop development (Meskela & Teshome, 2014).

4.1.2. Sidama coffee farmers cooperative union (scfcu)

Sidama Coffee Farmers Cooperative Union (SCFCU) was established in 2001 to constitute coffee-producing cooperatives in the Sidama Zone of southern Ethiopia. Recently, SCFCU has grown to represent 53 primary cooperative societies and over 80,000 farmers (smallholders), making SCFCU the second-largest coffee-producing cooperative union in Ethiopia. Nearly all coffee produced by the member cooperatives is shade-grown in low densities under the shelters of native trees and enset, a staple food crop. Individuals from SCFCU have been developing and handling Sidama-type coffee for more than 35 years and are now exporting high-quality, discernible coffee straightforwardly to abroad purchasers. Fair-trade Certified by Fair Trade Labeling Organizations (FLO) beginning around 2003, Sidama Union delivers roughly around 10,000 tons of high-quality Organic Arabica beans per year, 95% of which is washed.

Since its establishing in 2001, SCFCU has kept on serving its central goal to give assets to meet coffee handling, advertising, and credit needs to help the direct export of coffee from the SCFCU region of southern Ethiopia. Cooperative Coffees purchased its first coffee from SCFCU in 2009 and has since grown direct associations with a few part cooperatives, among them Shilcho, Homacho Waeno, Talamo, Bona, Abela Galuko, and Fero. As well as organizing coffee handling and product tasks, SCFCU gives monetary administration projects to help makers in addressing monetary necessities over time.

Washed Arabica coffee accounts for 95% of SCFCU's production. Its distinctive acidity and medium body distinguish it from its natural process coffee, which offers lower acidity and a rich, full body. Substantial landscape variations in the SCFCU region of Ethiopia result in flavour profiles with notes as diverse as red fruits, blueberry, and bitter cocoa. Yirgacheffe coffees, grown in SCFCU's higher altitudes, are distinguished by notes of lemon zest and bergamot. The harvest season takes place from September to December, with those at lower altitudes opening the season. SCFCU received Fair Trade certification in 2003. Fair-trade Certified by Fair Trade Labeling Organizations International (FLO) starting around 2003, SCFCU creates maker purchaser relations and commodity the individuals' uncommonly high-quality coffee directly to the international market.

4.1.3. Coffee Plantation Development Enterprise (CPDE)

Coffee Plantation Development Enterprise (CPDE) is an coffee cultivator, processor, and exporter in Ethiopia. CPDE likewise delivers Maize and Honey in Ethiopia. It was laid out around 30 years prior as the principal present day coffee estate in Ethiopia. As of now, CPDE is overseen and managed as Limmu Coffee Plantation (LCP) and has the head office in Addis Ababa to coordinate furthermore, work with the general exercises of the venture, which incorporates advertising and acquisitions. Coffee estate Development Enterprise (CPDE) is one of the state-claimed public ventures under the umbrella of the Privatization and Public Enterprises Supervising Agency (PPESA) oversaw by the top managerial staff relegated by the office.

Limmu Coffee Plantation (LCP), which is overseen by the endeavor, is situated in Oromiya Regional State fundamentally occupied with coffee creation at six distinct homesteads: Gomma-I, Gomma-II, Kossa, Suntu, Gummer, and Cheleleki ranches which are dispersedly situated across the area which is exceptionally appropriate for coffee development and creation. It likewise delivers maize on the Cheleleki ranch. The absolute region of the estate is 11182 hectares, out of which 7782 hectares of coffee farms accommodate about 15,147,038 bushes. Limmu coffee plantation produces a well-known top-quality coffee with spicy and winery flavours, fair body, and acidity. The Limmu coffee farms, which are known for producing coffees that have spicy and winery flavour with great sharpness and body, are extended in high land regions inside a height going from 1440-to 1900 Meters above ocean level. The scopes of temperature and yearly precipitation of the ranches lie somewhere in the range of 14°C and 28°C and 1500-1900 mm, separately. With respect to soil, it is humus-rich, somewhat acidic, and very much depleted. Such ideal environmental and soils factors winning at LCP ranches are profoundly favourable to producing coffee both in quantity and quality terms.

Production system

Generally, the coffee farms are "shade-grown coffee", that is, the plants are developed under the shades of trees and which has a positive effect or commitment to coffee quality. Also, it has long haul natural advantages. These include: offering more noteworthy soil steadiness, arrangement of untamed life cover, particularly for birds, safeguarding coffee plants from outrageous weather patterns, lower vanishing rates, and, in this way, more prominent water accessibility for coffee plants. Others are cool, moist plants and the use of less synthetic

fertilizer. Besides several technologies such as high-yielding and disease-resistant assortments, further developed crop the executives practices and handling techniques have been utilized to keep up with coffee creation and quality.

The creation framework depends on supportability standards, with proficient know-how, skills , abilities for executing Good Agricultural practices (GAP) where there is creation homogeneity and detectability inside hereditary variety and advancement. The venture overall and the homesteads, specifically, is directed by the standards of manageable coffee creation, which incorporates:

- a) Producing quality coffee in sufficient quantity
- b) Maintaining and increasing the long term fertility of the soils
- c) Maintaining and strengthening the shade trees under which the coffee trees are growing
- d) Avoiding all forms of pollution that may result from operations under practice, and
- e) Choosing or developing relatively the most efficient but economically sound operational methods to reduce the cost of production.

CPDE possesses' more than 4000 permanent employees having diverse callings. Moreover, there are in excess of 6,000 part timers especially associated with creation and handling exercises. By and large, the undertaking is the occupation for more than 30 thousand citizens in general and employees and their families specifically. It gives essential, social, and monetary administrations for its representatives and families.

Production capacity, harvesting, and processing

The enterprise's present annual capacity is at an average of 5 thousand tons, and shortly its capacity would reach 7 to 9 thousand tons of green coffee beans. There is one delayed reaping period beginning with early yield collect in August and arriving at its top in October and November, and finished late December. The green coffee handling technique for the all out yearly creation of 70 to 80 % is washed coffee of the known quality norms Limmu grade 2, while the leftover are un-washed sun-dried Limmu/Jimma grade 3, 4, and 5 coffees. Right now, the endeavor is claimed an aggregate of 17 washed and 5 un-washed coffee handling stations and five fake coffee driers across the ranches.

Certified Coffee Production

Coffee Plantation Development Enterprise has been conveying coffee by purchasers' inclinations, social and natural structures. The undertaking is as of now ensured by UTZ Kapeh and CAFE rehearses guidelines, and obtaining Rain Forest Alliance is in progress.

The undertaking is a trailblazer association that is chiefly occupied with the coffee creation and showcasing area to create a lot of unfamiliar money for the nation, and the green bean has been promoted as either traditional or guaranteed items.

Marketing

CPDE has been directly and/or indirectly selling coffee both at neighborhood and commodity advertising for around thirty years, and as of now, it has over 30 dynamic clients. Though its customers are found in all parts of the globe: Europe, Far East Asia, Australia, North America, and Canada: however, the major export market destinations countries of the enterprise are Germany, Japan Switzerland, France, and Italy. In keeping up with the demand from its clients, CPDE constantly improved its status in terms of quality, trust, creditability, confidence, and communication.

5. ANALYSIS AND RESULTS

Definition of Terms

Population: The collection of all units of interest from which a sample is drawn (Ethiopia)

Sample : A small unit/subset of the population used for analysis gathered through random sampling to make it representative of the population

p-value: A p-value is a measure of the probability that an observed difference could have occurred just by random chance. The lower the pvalue, the greater the statistical significance of the observed difference.

Rsquared value: An index that expresses how strong and relevant a relationship between two variables is.

Regression: This is a statistical method that attempts to determine the strength and character of the relationship between one dependent variable

ANOVA: Analysis of variance, a statistical data analysis technique used to determine the significant of the means of different groups. The Y-variable/dependent variable is a categorical data while the X-variables/independent variables/influence factors are numerical. It is an analytical tool that is used in statistics which splits an observed aggregate variability found inside a data set into two parts: systematic factors and random factors. Analysts use ANOVA test to determine the influence that independent variables have on the dependent variable in a study.

Y-variable: The variable of interest which is dependent on the x-variables/influence factors

X-variables: The variables that causes an effect or change in the Y-variable, they influence how the y behaves or react based on a certain change on the influence factors.

5.1. DATA PREPARATION AND MANIPULATION

The data used for this analysis is a secondary data. It was gotten through research and downloaded from a valid and trusted source found in the database of the International Coffee Organization website https://www.ico.org/new_historical.asp . It contains historical data on the global coffee trade in which that of Ethiopia was extracted from.

Figure 2. Transformed and prepared data for analysis.

	A	B	C	D	E	F	G	H	I	J	K	
1	Year	Import_Non	Export_Non	Total Production_Non	Retail Prices_Non	Price paid to farmers_Non	Import	Export	Total Production	Retail Prices	Price paid to farmers	
2	1990	1,344	3,075	3,401	61.09		19.92	1,257	1,418	3,115	61.09	22.92
3	2001	1,432	3,153	3,158	43.78		10.57	1,432	1,939	4,044	43.78	15.32
4	2002	1,463	2,810	2,890	26.88		12.78	1,447	2,277	4,094	26.88	18.27
5	2003	1,435	2,523	2,599	34.57		20.81	1,336	2,374	4,394	34.57	22.77
6	2004	1,495	2,489	2,613	48.85		26.26	1,538	2,620	5,213	48.85	21.91
7	2005	1,693	2,002	2,175	64.23		40.82	1,577	2,702	4,779	64.23	27.92
8	2006	1,820	2,704	2,894	58.32		47.02	1,601	2,770	5,551	58.32	44.72
9	2007	1,770	3,210	3,490	69.83		55.88	1,968	2,806	5,967	69.83	56.72
10	2008	1,804	3,054	3,335	71.71		71.09	1,901	1,868	4,949	71.71	76.94
11	2009	1,659	2,669	2,894	77.06		49.03	1,309	2,904	6,830	77.06	44.71
12	2010	1,727	3,150	3,267	85.46		55.61	1,369	3,022	5,560	85.46	42.36
13	2011	1,647	2,727	3,115	145.46		73.54	1,452	2,832	5,650	145.46	74.14
14	2012	1,680	3,583	3,914	102.79		71.80	1,559	3,166	6,132	102.79	68.50
15	2013	1,709	3,500	3,633	73.30		67.71	1,595	3,044	6,242	73.30	66.56
16	2014	2,198	3,455	3,744	83.24		70.18	1,525	2,872	6,383	83.24	59.88
17	2015	2121	3,316	3,650	76.03		60.22	1513	3,092	6,515	76.03	59.55
18	2016	2350	4,605	4,962	87.31		59.41	1495	3,497	7,143	87.31	65.73
19	2017	2306	4,359	4,597	81.51		63.95	1460	3,654	7,347	81.51	68.73
20	2018	2262	4,454	4,704	70.68		57.23	1429	3,801	7,511	70.68	70.93
21	2019	2348	5,355	5,509	69.31		54.61	1448	3,812	7,343	69.31	70.50
22												
23												
24												

The final transformed data will help to make the analysis phase easy as we now have a separated data of coffee production, export, import, retail prices and profits of farmers that are certified and those that are not certified under any fair-trade organization.

5.2. Analysis

As we are interested in evaluating the impact of the fair-trade certification on the standard of living and general business value on retail coffee farmers, the newly transformed data has information on certified and non-certified farmers hence two different groups. We would be analyzing and comparing the means of these two groups based on several influence factors given in the data. We want to see if there would be a significant difference in the means of the two groups. The befitting analysis technique that would be used is the ANOVA (Analysis of variance).

ANOVA ANALYSIS

The analysis was performed using **Minitab**, a statistical software for data analysis. **Minitab** is a [statistics package](#) developed at the [Pennsylvania State University](#) by researchers [Barbara F. Ryan](#), Thomas A. Ryan, Jr., and Brian L. Joiner in conjunction with Triola Statistics Company in 1972. It began as a light version of OMNITAB 80, a statistical analysis program by [National Institute of Standards and Technology](#). We used this analysis to compare the means of the Total production of Coffee from those farmers that are registered with the fair trade and that of the non-registered farmers. Also, this same analysis was used to compare the means of the Profits made from this same groups, Certified and non-certified farmers.

Below are the results of the analysis.

ANOVA: Total Production versus Certified

Method

Null hypothesis All means are equal
 Alternative hypothesis Not all means are equal
 Significance level $\alpha = 0.05$

Equal variances were assumed for the analysis.

Factor Information

Factor	Levels	Values
Certified	2	Total Production, Total Production_Non

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Certified	1	48888270	48888270	43.19	0.000
Error	38	43009704	1131834		
Total	39	91897974			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
1063.88	53.20%	51.97%	48.14%

Means

Certified	N	Mean	StDev	95% CI
Total Production	20	5738	1238	(5257, 6220)
Total Production_Non	20	3527	855	(3046, 4009)

Pooled StDev = 1063.88

Figure 2.2. interval plot of total production vs certified

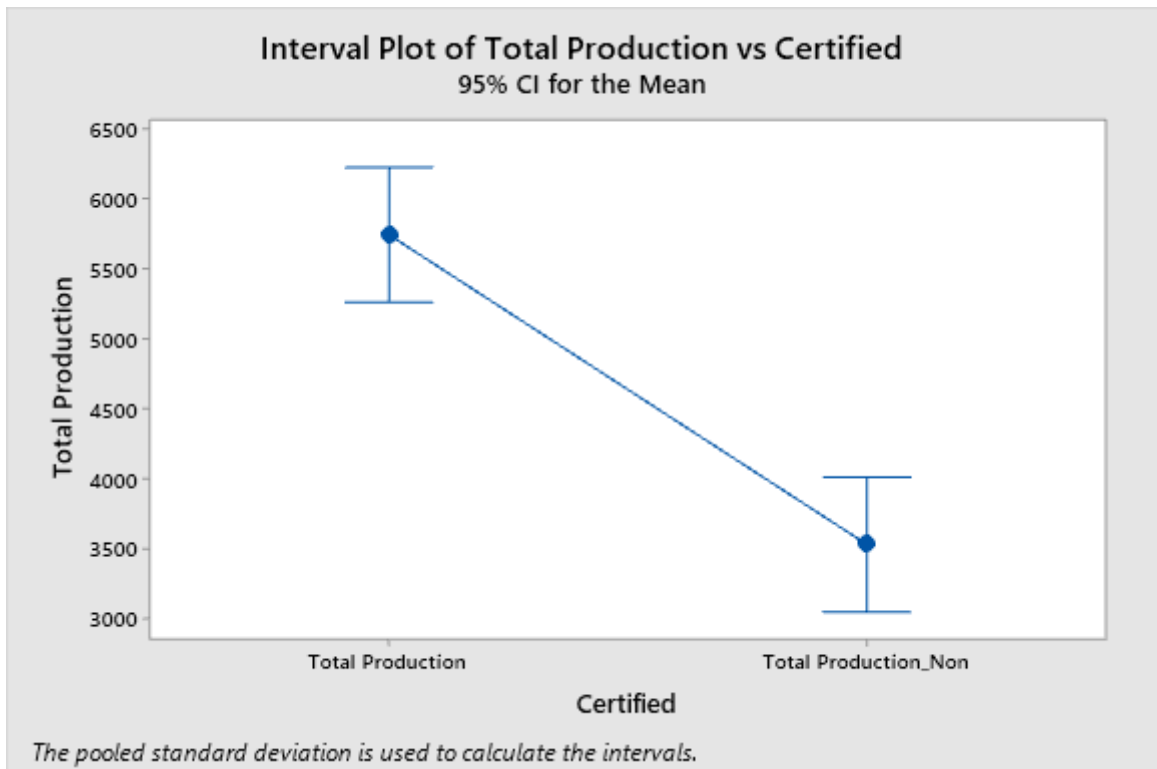


Figure 3. Individual value plot of total production vs certified

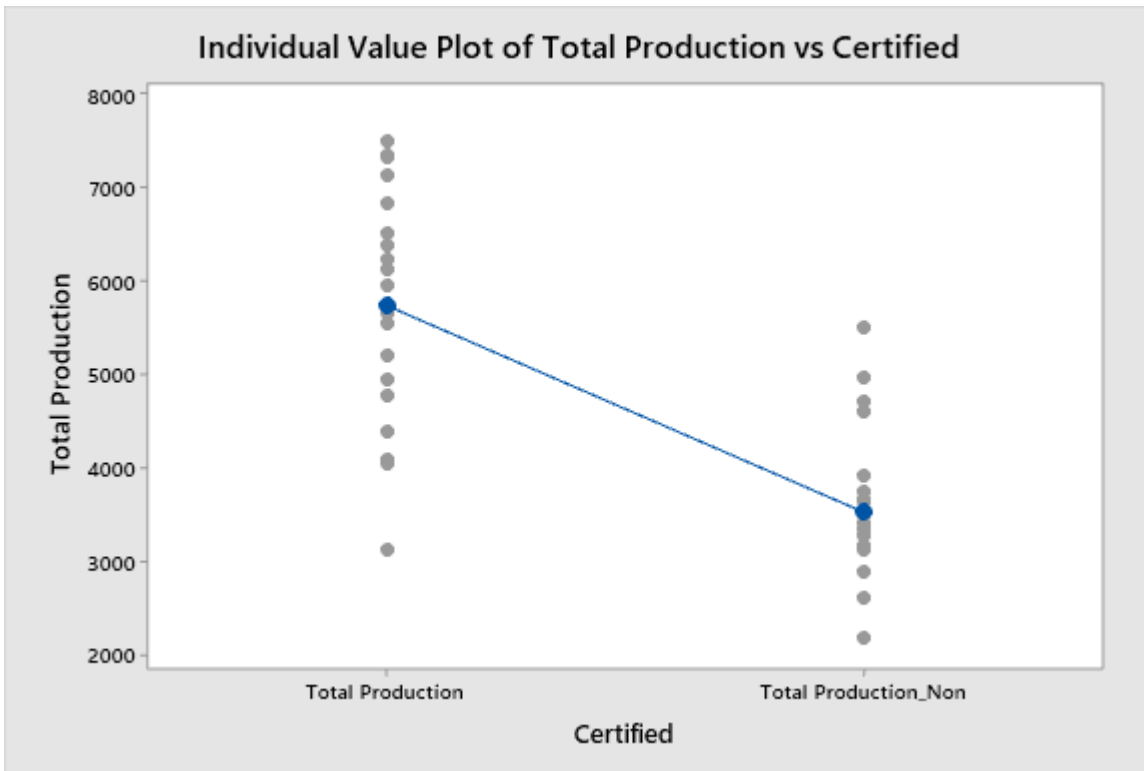


Figure 3.1. Boxplot of total production

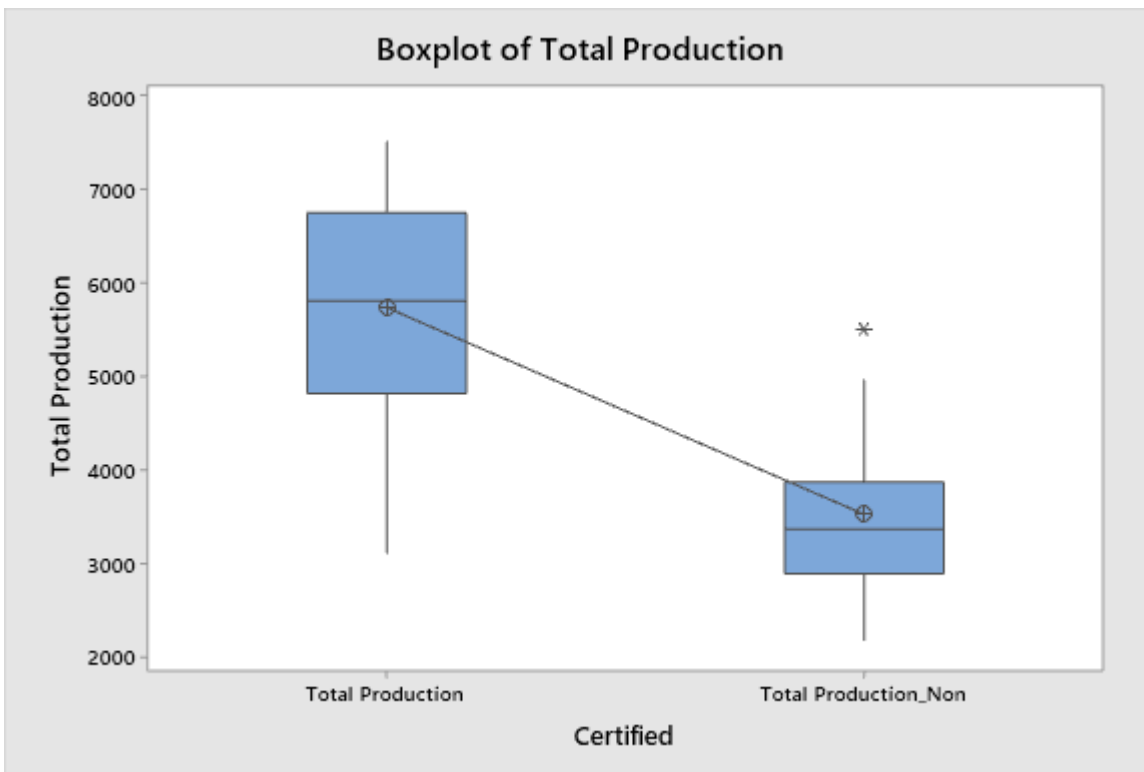
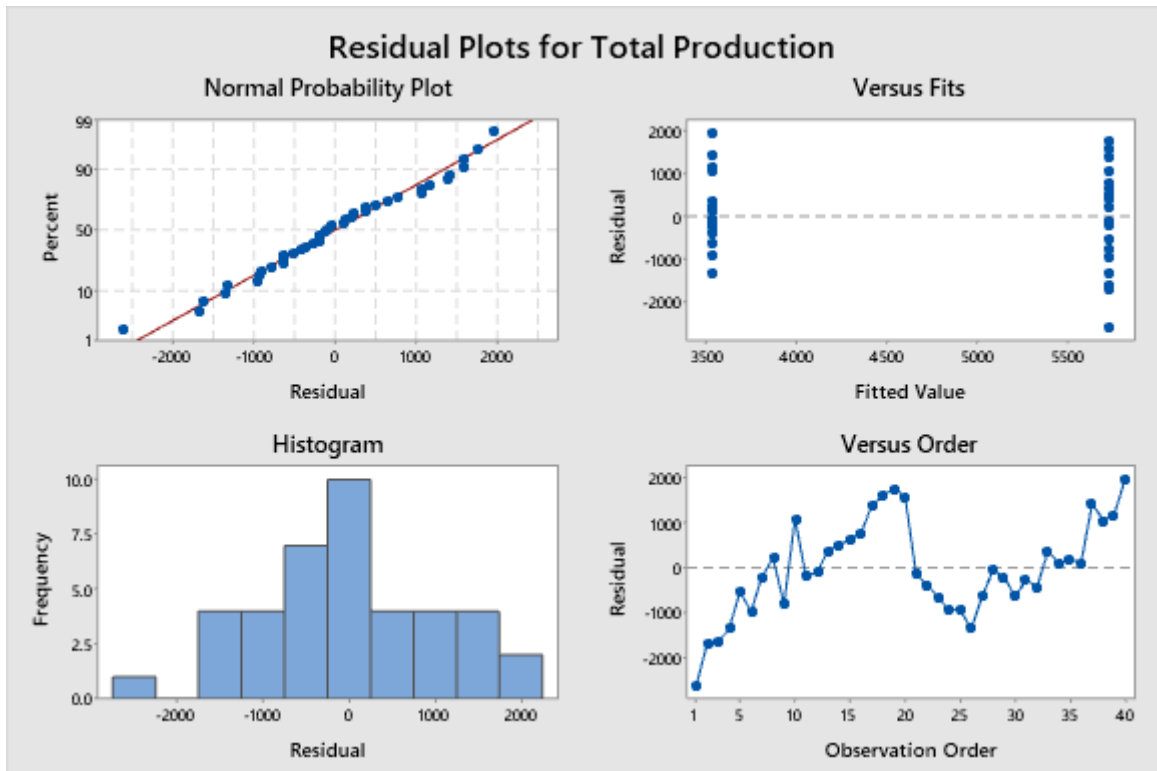


Figure 3.2. Residual plots of total production



One-way ANOVA: Profit versus Certified

Method

Null hypothesis All means are equal

Alternative hypothesis Not all means are equal

Significance level $\alpha = 0.05$

Equal variances were assumed for the analysis.

Factor Information

Factor Levels Values

Certified 2	Price paid to farmers, Price paid to farmers_Non
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Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Certified 1	2.8	2.813	0.01	0.937	

Error 38 16761.8 441.100
 Total 39 16764.6

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
21.0024	0.02%	0.00%	0.00%

Means

Certified	N	Mean	StDev	95% CI
Price paid to farmers	20	49.95	21.39	(40.45, 59.46)
Price paid to farmers_Non	20	49.42	20.61	(39.92, 58.93)

Pooled StDev = 21.0024

Figure 4. Interval plot of profits vs certified

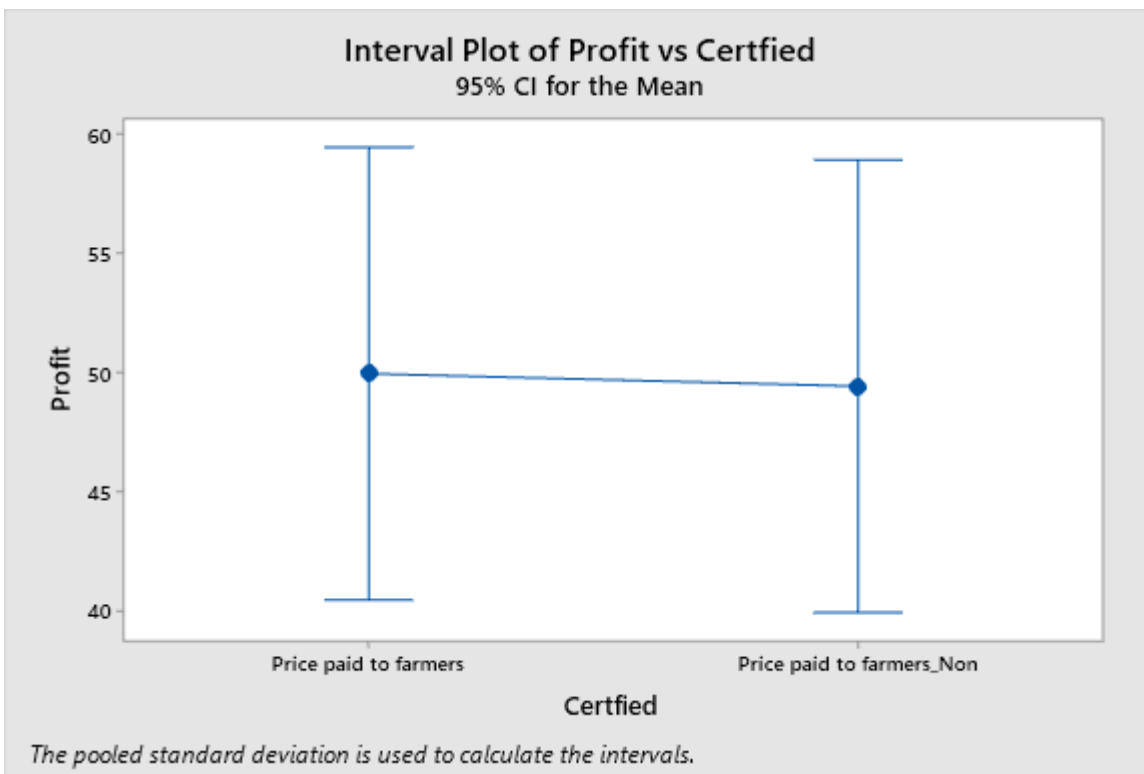


Figure 4.1 Individual value plot of profit vs certified



Figure 4.2. Box of profit

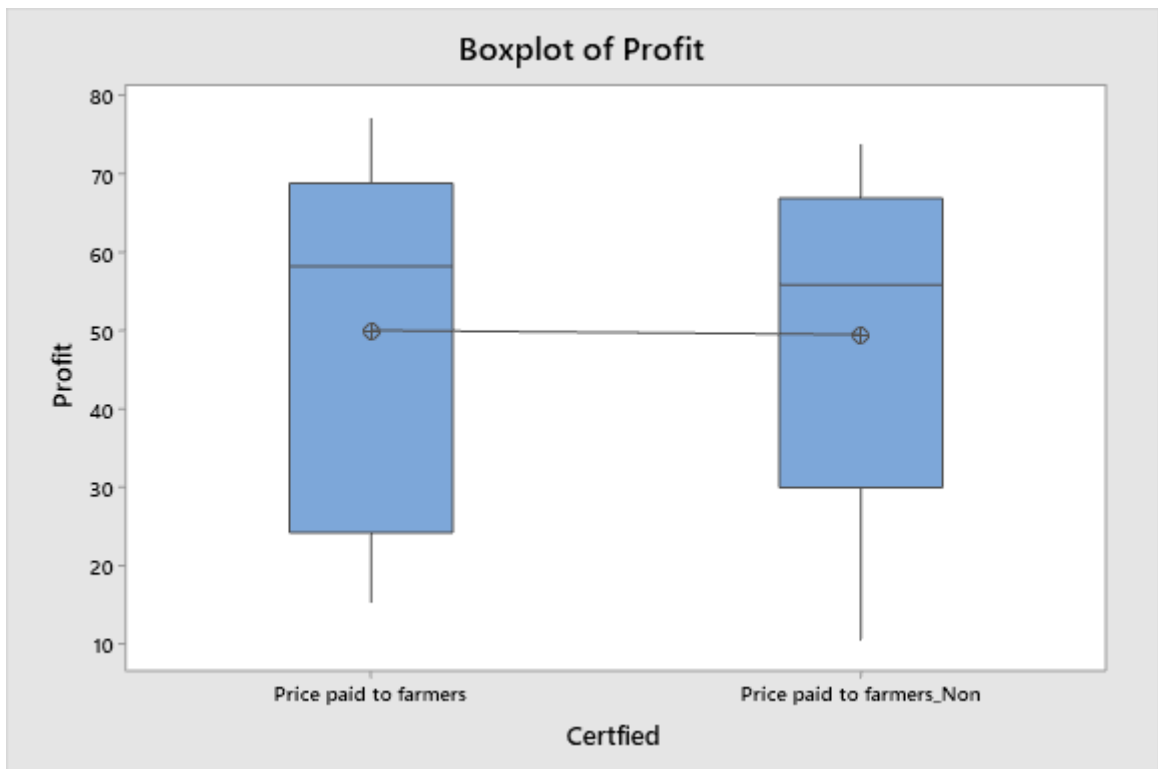
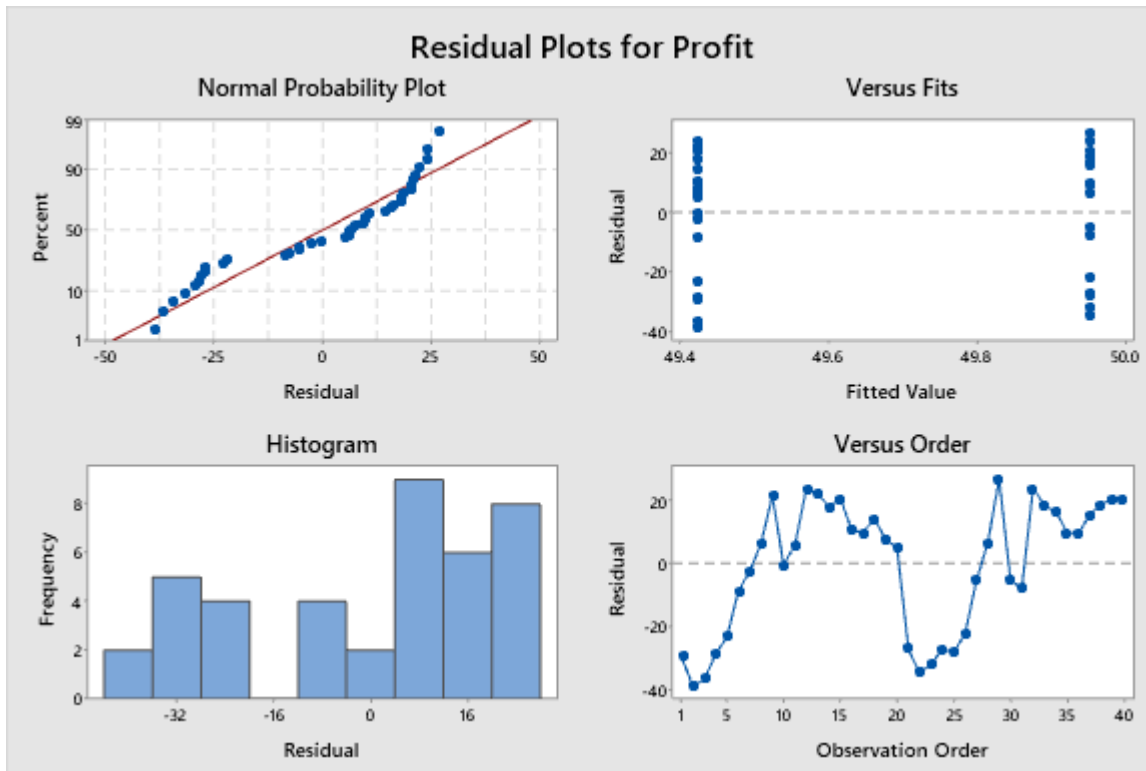


Figure 5. Residual plots for profit



From the results above we can see a significant difference between the means of the two groups of farmers in the analysis of the Total production of coffee ($p\text{-value} = 0.000$, $Rsq = 53.20\%$). This means that the difference in the total production of coffee from these two groups is quite pronouce and relevant as seen from the Rsq value.

But from the analysis of that of the Profit made by the two groups, we see that there is no significance difference between the means ($p\text{-value} = 0.937$, $Rsq = 0.00\%$). Hence the profit made by the two groups of farmers didn't differ that much which means it didn't matter where you are a registered member of the trade fair certification or not as the profit made is almost equal.

6. CONCLUSION

Although the data is significantly small due to limited information and data, from the analysis made above it can be concluded that the trade fair certification might help with increasing total production of coffee which may be due to factors like access of larger farmland, good fertilizers, and storage facilities for registered farmers. But after sales of this coffee, the profit made by both certified and non-certified are not that different.

Generally, farmers are more interested in the profits as it is the major metric for a successful business which helps them to settle other costs and finances in their lives. So, there is really no huge impact on the trade fair certifications of farmers as seen and registered farmers should probably stop patronizing such organizations. Except they are interested in the additional benefits which in real sense still do not make any difference.

Below is a summary dashboard of the data built with Microsoft Power BI.

Figure 5.1. Summary dashboard of coffee production and sales.



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