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Trading transparency: How it affects the coffee farmers?

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Trading processes are occurring every day in all industries, and people within these processes are constantly faced with inequalities due to different power structures and opportunities. In particularly, the coffee industry is one industry that is affected by these trading differences. The purpose of this thesis is to examine two different trading concepts within the coffee industry; blockchain and direct trade, and how these are affecting the livelihood of the coffee farmers. This thesis was analysed from consumer's and supplier's perspective, which correspond to blockchain and direct trade respectively. Further, through a deductive qualitative research we gathered empirical findings which prove that farmers of developing countries such as Ethiopia and Guatemala can better off through a transparent and essential relationship, which either concept provides. Particularly, while blockchain encourages ethical customer to channel its purchasing power to the farmer, in order to improve their livelihood, a direct trade relationship between farmer and the buyer provides a personal connection in a vision to thrive together.

Keywords: coffee supply chain, fair trade, direct trade, ethical trade, blockchain, coffee income transparency, trade theory.

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1. Introduction

Nowadays, the significance of coffee can be comprehended as an industry that is worth over $100 billion at an international extent (Goldschein, 2011). Despite its value, coffee industry could be considered as an overall unfair market, where many farmers in developing countries find it tough to cover the needs of their families whilst Western developed countries benefit substantially from coffee trade (Gullman, 2014).

The world we live in is to a large extent conquered by trade, hence, by looking at how trading methods affects the farmers livelihood, we can strive to make the market fairer and more equalised. Products or services tend to be exchanged between countries worldwide in order to meet the expectations of the majority of people. As Barkley and Johnson (2008) stated, international trade is the process of purchasing products from one location, at a relatively low cost, in order to transport them and ultimately sell them at a higher price. Although trading is a process that could be observed in every kind of industry, in this paper, the focus is on the coffee industry, and how two different trading concepts affect the livelihood of coffee farmers.

Capturing the coffee supply chain, it could be seen as an operation process, which involves cultivating, harvesting, processing and roasting the coffee, going all the way to its consumption (LiangHui & Reeveerakul, 2019). The farmers are placed in the first block of the coffee supply chain and could be considered as an important part of it, as from there the coffee is started being produced and finally distributed either locally or internationally (Moyee Coffee, 2018). Even if the coffee's consumption and production is being in an upward slope, the livelihood of the coffee producers remain uncertain (MacGregor, Ramasar & Nicholas, 2017). This uncertainty might be arisen from the fact that the majority of consumers are unaware of the whole process that has been followed from the harvest of coffee beans up to the moment of trading the coffee to retailers and eventually, to the consumers (Gonzalez Soto, K., n.d). This lack of awareness could be one of the reasons that distract the sustainability, transparency and traceability of the coffee supply chain (Thiruchelvam, Shaka Mughisha, Shahpasand & Bamiah, 2018). Bearing in mind that coffee is worth $ 100 billion across the globe (Menke, 2018) and that people consume 1.5 billion cups of coffee every day (Fortems, 2010). The statements above could highlight precisely the importance of coffee, as well as help consumers to

consider how their purchasing power could contribute to the farmers' well-being. By taking the first step to enlightening the coffee consumers, positive change towards fairer trade conditions can eventually be made by the consumers themselves (Fortems, 2010). For that purpose, two processes have recently been created in order to make sure that the coffee supply chain is transparent and beneficial for the farmers.

Those two referred procedures that ensure the transparency of the coffee supply chain are blockchain technology and direct trade. Blockchain and direct trade are two concepts that address transparency within the coffee supply chain, focusing on entirely different perspectives. While the former regards the consumer's perspective, the latter is related to the coffee supplier's point of view and the relationship, they have with the coffee buyers. Hence, it becomes appealing to study how coffee supply chain is operating under blockchain and direct trade, and what the impact on the coffee farmers would be. The examination of what is mentioned above will be based on the analysis of two case studies namely, San Miguel Coffees and Moyee Coffee, as their coffee supply chain is grounded on direct trade and blockchain, respectively. Considering the two perspectives to which blockchain and direct trade are related, San Miguel Coffees and Moyee Coffee serve the actual research, as they represent the coffee supplier's and consumer's point of view, correspondingly.

To sum up, the current research paper aims to understand how the livelihood of the coffee producers might be affected through the implementation of the blockchain and direct trade concepts. We wish to do so by analysing two case studies which refer to two different perspectives, the one of suppliers and the one of customers. Further, in the following pages we have mapped the journey through which we wish to answer our research questions. Therefore, the actual thesis is being divided in ten different sections, each of them presenting parts that have played a crucial role in accomplishing the purpose of the thesis.

2. Problem

The current section presents the problem which inspired us and on which we have based our research purpose and research question.

Studies conducted by the Fairtrade Foundation (2019), showed that coffee is one of the most famous beverages worldwide. According to International Coffee Organization (2016), 151.3 million 60 kg bags of coffee beans are consumed annually. However, a question that could be arisen is; what proportion of the population is truly aware of the process that has been followed for the coffee production?

The coffee industry has been kept into a shadow for many years up to its colonization (Wright, Zeltmann & Griffin, 2017). Farmers in developing countries such as Brazil, Kenya and Ethiopia, tend to be the responsible ones for the cultivation, harvesting and sometimes the roasting of the coffee beans (Wright, Zeltmann & Griffin, 2017). Nevertheless, according to Wright, Zeltmann and Griffin (2017), although the responsibility that is given to them is high, their compensation is neither fixed nor in an accordance with the effort which has been put into growing and harvesting the crop. More specifically, the farmers tend to get paid fifty cents or even less for a pound of coffee and an average of 500 dollars per year (Wright, Zeltmann & Griffin, 2017). The income that is given to them relatively to the worth of the coffee indicates that farmers, as well as their family are receiving a revenue that classify them to the low standard of living, close to the poverty line (Wright, Zeltmann & Griffin, 2017). This fact could confirm the estimation of Moyee Coffee (2018) that coffee producers cannot afford in covering not only their needs but also the needs of their family.

Nevertheless, the problem is that trade tends to be unfair (Getaneh & Wodajo, 2005). This unfair phenomenon might affect, additionally, the coffee trade since, according to Gullman (2014), “the coffee market is inelastic; increased supply results in a drop in price”. This is because when demand is in high levels, coffee farmers plant more trees which will not produce coffee berries for the next three years, fact that will lead the demand to drop which in return will result in coffee surplus and drop in prices (Gullman, 2014). Although coffee is worldwide distributed from the initial producers to the buyers, these ones determine a low price of the coffee within a competitive market knowing that

farmers are more than willing to receive a very small compensation rather than getting an income of a zero level (Wright, Zeltmann & Griffin, 2017). This could be seen as a phenomenon of inequality or even more as an exploitation of the farmers' weakness, which might affect any kind of transparent relationship likely developed within the coffee producers and consumers (Wright, Zeltmann & Griffin, 2017). Therefore, this will increase the unawareness of the consumer towards the procedure of the coffee production, which could work as an obstacle for supporting the coffee farmers (Wright, Zeltmann & Griffin, 2017).

Coffee production provides a livelihood for a large proportion of poor population, such as Ethiopian, in the form of jobs for farmers (Worako, Jordaan & Schalkwyk, 2011). However, several consumers tend to have a lack of information regarding the origin of the coffee. Therefore, the implementation of blockchain within coffee supply chain, will ensure transparent transactions (Kshetri, 2018). In that sense, through the transparency that blockchain exposes, the ethical consumers are able to support the farmers in the developing countries and contribute actively and positively to their living status (Stokes, 2019). Ultimately, the transparency is not only blockchain's keystone but also a significant base for the direct trade, focusing on a different perspective, which will be explained later on.

As it has been mentioned, blockchain is being grounded on the idea of transparency. Nevertheless, the perception of being transparent is met in the core of direct trade, concentrating on a different perspective, which is the suppliers' viewpoint. In this sense, bringing the focus on the suppliers' perspective, for many of them it would be very important to build a relationship with their buyers, which will cause a win-win situation rather than exploitation of their business, transforming in that way their status of living (M2 Presswire, 2016).

To sum up, within the coffee supply chain there may be issues that could negatively affect the coffee trade. Bearing in mind the worth of coffee, there have been conditions that are not beneficial, neither for the farmers themselves, nor for their own families. From the consumer's perspective, although people seem to purchase coffee on a daily basis, not all of them know the story behind it. Hence, blockchain is aiming to inform customers regarding the origin of the coffee, and through this transparent attitude, moral-minded

consumers can assist in enhancing the coffee farmers' way of living. Furthermore, every transaction along a blockchain supply chain is fully auditable and sustainable (Wang et al., 2019; De Pelsmacker & Janssens, 2007). From the supplier's perspective, coffee trade tends to involve middlemen who come between the buyer and the farmer in the buying process, which take away the personal relationship and transparency created. Therefore, through direct trade, middlemen or brokers are not part of the coffee supply chain (Wright, Zeltmann & Griffin, 2017), making the coffee distribute under sustainability and transparency, resulting in essential relationship between the supplier and the buyer. Therefore, it becomes appealing to analyse how the coffee supply chain under blockchain and direct trade could impact the livelihood of coffee farmers.

3. Purpose

This section aims to analyse what the main target of the current research paper is. Furthermore, the two research questions will be presented.

The purpose of the actual thesis is to examine the coffee supply chain under the implementation of two trading concepts; blockchain and direct trade. Subsequently, the authors of the study aim to discover how the livelihood of coffee farmers is being affected when coffee supply chain is structured under the referred concepts. As it will be discussed later, blockchain and direct trade are concepts that approach the topic from different perspectives. The former is related to the consumer's point of view whilst the latter regards supplier's perspective. For avoiding confusion, two research questions are aimed to be answered in respect with the perspectives. The first research question corresponds to the consumer's viewpoint, while the second one is closely related to the supplier's perspective. The contribution of the knowledge that emerges from our research aim could have a positive social impact, since it has the potential to change people's perception of how their choices when buying coffee might affect people in the whole supply chain.

Eventually, the research paper aims to answer the following questions:

RQ1. How the coffee supply chain under the concept of blockchain might impact the livelihood of coffee farmers?

RQ2. How the coffee supply chain under the concept of direct trade might impact the livelihood of coffee farmers?

4. Perspective

Throughout this section we will be discussing the two different points of view that the current study is basing its analysis on.

As it has been mentioned, the blockchain and direct trade are taking two different perspectives. Starting from the blockchain, the analysis of this concept will be based on the Moyee Coffee case study. As it will be analysed in later sections, Moyee Coffee's supply chain is being operated under blockchain, representing the consumer's perspective. As Mansfield-Devine (2017) states, the blockchain technology allows transparency to flow within the supply chain, enabling in that way the authenticity of the transactions. Thus, there is an improved visibility among the supply chain, which eliminates the lack of information for the consumers regarding the origin of the product, and in the actual case, the origin of the coffee (Casado-Vara et al., 2018). Regarding Moyee Coffee, its coffee supply chain implements blockchain, aiming to increase the awareness of the consumers regarding the coffee production. Therefore, it encourages the ethical consumers to channel their purchasing power in order to support the farmers in Ethiopia, in a personal and professional level. For that purpose, in the actual thesis, the blockchain technology and its impact on coffee farmers is being analysed from the consumer's perspective.

From the other side, the investigation of the direct trade will be based on the analysis of San Miguel Coffees case study. Conversely to the Moyee Coffee, San Miguel Coffees bases its coffee supply chain on the direct trade, representing the supplier's perspective. Given that during direct trade there is a cooperative interaction between coffee supplier and buyer, this research is aiming to examine the direct trade and its impact on the livelihood of coffee farmers for coffee suppliers point of view.

As it could be seen, within the idea of direct trade, the relationship of supplier-buyer is the sole integral part, without referring to any possible relationship with the consumers. Reflecting all the above statements, it could be indicated that the blockchain is

significantly related to the customer perspective, as it aims to enhance their awareness regarding the process of coffee distribution, which has been followed whilst the direct trade is a concept closely linked to the supplier's perspective. In this sense, in the current research paper, we are striving to examine how the coffee farmers might be impacted when the coffee supply chain is being operated on the lead of the direct trade and blockchain, focusing on two different perspectives; the one of suppliers and the one of customers, correspondingly.

5. Literature Review

"Although an integrative review article can be organized in various ways, the author is still expected to follow accepted conventions for reporting how the study was conducted" (Torraco, 2005). Reporting the construction of the thesis paper, according to Torraco (2005), is closely related to the methodology part, where authors are asked to present how the literature has been identified, stating the process that was used to develop and present the findings of the study. Reflecting Torraco (2005), in this section we will address the way that we conducted our research, including keywords and databases. Further, we will provide a trustworthy frame of literature, presenting and comparing authors' ideas regarding the two topics that we are interested in; blockchain and direct trade. The relevant literature provides a range of insights which contribute to analyse the two desired variables, aiming to clarify what the blockchain and direct trade stand for.

According to Collis and Hussey (2013), a thesis paper should be constructed based on two kinds of data; primary and secondary. The essential difference of each type of data is that the former are data generated by an original source, such as experiments or interviews, while the latter are data collected through an existing source, like a database (Collis and Hussey, 2013). Therefore, this literature review is structured by secondary data. More specifically, 33 peer-reviewed and academic articles have been used and searched based on different keywords such as; coffee supply chain; fair trade; direct trade; ethical trade; blockchain; coffee income transparency; and, trade theory. Additionally, all the articles related to our topic have been searched and gathered through electronic research from ABI Inform Global such as ProQuest, setting "English" as the sole language of search. Moreover, from the interviews with the founders of San Miguel Coffees and Moyee Coffee plenty of information have been gained and utilized for the

analysis of the study, cited as “Cabrera (2019)” and “Stokes (2019)”, respectively. Further, for the extensive examination of the blockchain concept and how it could influence the livelihood of the coffee farmers, many insights were found in the Moyee Coffee Impact Report (2017). Those insights have been used and cited in the actual paper as “Moyee Coffee (2017)”. In this literature review, previous researches, insights and comparison of different authors’ ideas are presented.

5.1 Blockchain

5.1.1 Blockchain Definition

The blockchain technology is already known for its contribution to the world of information technology, playing a crucial role in the privacy and security of data (Van Mölken, 2018). Defining the blockchain technology, it is an “emerging digital technology based on a distributed database whose duplicates are deployed at multiple computers in the blockchain network, known as nodes” (Ying et al., 2018). However, a simple way to understand what blockchain is, is to capture the concept. In that sense, blockchain technology is seen as a set of blocks which are linked with one another in order to make a chain (Van Mölken, 2018). According to Van Mölken (2018) each block consists of information regarding the actual and the previous block.

Nevertheless, through the years, blockchain technology managed to expand within the food industry sector. Bringing up that blockchain is all about blocks which are linked to each other (Van Mölken, 2018), the referred concept enhances the transparency, accountability and traceability in food supply chains (Kim & Laskowski, 2017; Kshetri, 2018), while it provides sustainability and flexibility within the supply chain management (Kshetri, 2018).

5.1.2 Blockchain and Coffee Supply Chain

As time passes, blockchain could be considered as a concept that makes its significance apparent in every possible industry such as finance, utilities or real estate (Treleaven, Brown & Yang, 2017; Basden & Cottrell, 2017; Spielman, 2016). More specifically, speaking from the perspective of the coffee industry, literatures have stated clearly that blockchain is a phenomenon that “came to stay” as it promises a “fully transparent and open coffee supply chain not only economically feasible, but necessary” (Benton et al.,

2018). In their paper research, Benton, Radziwill, Purritano and Gerhart (2018) have studied blockchain, a newly developed and tested concept. Blockchain aims to retain a trusting relationship without requiring the physical presence of a representative to the farm for a personal inspection of the process that occur (Benton et al., 2018). While fair trade is an alternative approach of trading that aims the sustainable development of disadvantaged producers in the Third World (De Pelsmacker & Janssens, 2007), according to the Impact Report of Moyee Fairchain Coffee (2017), blockchain is a concept that goes a step beyond the fair trade. The reason is referred to the fact that while previously applications could be run through trusted intermediaries, now the same applications can be operated "in a decentralised fashion, without the need for a central authority, and achieve the same functionality with the same amount of certainty" (Mao, Hao, Wang & Li, 2018). Furthermore, there are examples in the literature where blockchain has been used to track and trace coffee beans on the complete route from farmer to consumer (Verhoeven et al., 2018). The importance of blockchain technology is a fact commonly accepted. To be more specific, Benton, Radziwill, Purritano & Gerhart (2018), as well as Angela Walch (2018) have stated that blockchain is an important concept rather than a fad, which reflects both security and truth. More particularly, as Knuth (2000) has said, blockchain is a fact easily understandable by everyone that enhances the comfort when it comes to the implementation of blockchain-based solutions (Benton et al., 2018). The efficiencies that blockchain promises to provide result in the generation of competitive advantages, fact that highlights the importance of the referred concept in the foreseeable future (Piccoli & Ives, 2005). Additionally, the most immediate advantage of blockchain is the principle of decentralization (Sharma, 2018), which leads to an increased transparency (Verhoeven et al., 2018). Furthermore, what should be noticed here is that the increased transparency "does not ignore the privacy" (Hooper, 2018). However, while one of the core purposes of blockchain is the implementation of fairness, as the farmers regularly are being treated badly with low wages and delayed payments, an additional characteristic of it is that it allows ethical consumers to support the coffee farmers and their family (Verhoeven et al., 2018; Moyee Coffee, 2017). For that purpose, there is a need to improve social sustainability in the coffee supply chain, which will provide a versatile and unlimited spectrum of information regarding the coffee production background, fact that would result in the decline of unfairness, instability, as well as any kind of risk related to falsification within the actual industry (Verhoeven et al., 2018). According to Benton, Radziwill, Purritano & Gerhart (2018), blockchain

enables the traceability, as it “traces” the history of the coffee from the source to the consumer. In that way, people that might not have plenty of time or the knowledge for finding the source of what they consume, are now aware of what they actually receive (Benton, Radziwill, Purritano & Gerhart, 2018).

5.2 Direct Trade

5.2.1 Direct Trade Definition

The concept of direct trade can be discussed in three different concepts (MacGregor, Ramasar & Nicholas, 2017). Those three concepts, according to MacGregor, Ramasar and Nicholas (2017), are the concept of coffee sourcing, marketing strategy and finally, voluntary scheme. For the sake of this research, direct trade was chosen to be analysed as a concept of coffee sourcing. Therefore, the direct trade could be defined as truly transparent negotiation between coffee supplier and the coffee buyer (Wright, Zeltmann & Griffin, 2017).

5.2.2 Direct trade and Coffee Supply Chain

Direct trade is another concept that is also aiming to prevent unfairness in the supply chain. A series of literatures have stated that there is not a standard definition that could explain precisely the meaning of direct trade. More specifically, Badiyan-Eyford (2013) affirmed in his paper that “there is no industry standard for this model of coffee sourcing, nor is there standard terminology”. However, from the perspective of coffee specialty, the direct trade could be seen as an alternative to cooperative-dominated trade, which cause positive outcomes and impacts on coffee farmer’s life (Robinson, 2015). The abovementioned assumption can be complemented by MacGregor, Ramasar & Nicholas (2017), who described the direct trade as a concept that addresses the regular relationship and interaction that the coffee producers develop with the roasting firms. Moreover, studies have shown that when producers and customers interact with one another, the coffee tends to be better. More specifically, Holland, Kjeldsena & Kerndrupb (2016) have declared that due to the fact that direct trade often requires particular criteria like visiting the farms, and paying significantly higher prices for greater coffee quality, it enables better coffees with better taste, thanks to the incentives it gives the farmers. A similar argument was declared by Angrisani (2010), who stated that direct trade is an approach that “emphasizes a high-quality product and a quality of life for the coffee farmers”. This

could entail that high-quality coffee will make buyer to purchase more, and therefore, the welfare of the coffee farmers is enhanced, as more kids will be going to school or people could get a better job in the future (Cilella, 2015). Furthermore, the concept of direct trade seems to contain sustainability standards during its implementation (MacGregor, Ramasar & Nicholas, 2017). Specifically, the direct trade contributes to sustainability through coffee sourcing practices ensuring traceability (Mol & Oosterveer**,** 2015). According to Benton, Radziwill, Purritano & Gerhart (2018) the notion of traceability could be defined as the process of "tracing" or simply, passing, the story of the coffee to the consumers. Traceability is in an accordance with the ethical perspective of the food chain at large, since it could be seen as the ability to "map ethical aspects of the food chain by means of recorded identifications" (Coff et al., 2008). This ethical consideration that traceability addresses could be thought as the core of the direct trade as well. Analytically, direct trade within coffee supply chain enables a transparent relationship between producers and consumer, which results in preventing the middlemen cheating the farmers out of appropriate pay (Wright, Zeltmann & Griffin, 2017). Hence, companies that operate on the lead of direct trade have a standard of this financial transparency, a concept which, according to MacGregor, Ramasar & Nicholas (2017) could be defined as the process during which the roaster knows who the producers are and pays them directly.

5.3 Research Gap

This subsection refers to issues in the literature review that possibly kept the authors limited in relation to the research. Reflecting researchers' experience towards the literature limitations, as well as the statement of Sandberg and Alvesson (2014) regarding gap-spotting, the method of research questions' construction is presented and explained, extensively.

Blockchain and direct trade are both concepts that are relatively new in the society, and more particularly to the coffee industry. As Francisco et al. (2018) have declared, blockchain is a concept that is currently limited in the academic and managerial area. As for direct trade, the authors of the research experienced a gap of literature review in terms of peer-reviewed article, fact that resulted in the acceptance of non-peer reviewed articles. Therefore, the current research has been grounded on a limited spectrum of peer reviewed

literatures, analysing the direct trade and blockchain concepts in the aspect of coffee trade. Sandberg and Alvesson (2014) have discussed the importance of the research gap within their empirical material, highlighting that the "most dominant way of constructing research questions is gap-spotting". In this sense, bearing in mind Sandberg and Alvesson (2014), as well as the gap of literature regarding direct trade and blockchain in relation to the coffee trade, we were led to the creation of our two research questions, stated in the section named "Purpose".

Despite the prevalence of the gap-spotting in the construction of a research question, Sandberg and Alvesson (2014) have discussed the basic models of gap-spotting. There are four basic gap-spotting models known as confusion, neglect and application spotting and combinations of gap-spotting models (Sandberg & Alvesson, 2014). However, the current paper focuses on the combination of gap-spotting model, composing the neglect and application spotting. This combination serves the research as the authors aim to explore further the area of blockchain and direct trade, as well as to complement and support already existing literature, objectives that portray precisely the both neglect and application spotting (Sandberg & Alvesson, 2014).

6. Theoretical Model

In this section, we will present the Triple Bottom Line (TBL), a theory that will surround our analysis and with which we will link the empirical data gained by the interviews, in order to explain the underlying process. We also evaluate the importance of ethical trade, using the models Corporate Social Responsibility (CSR) and Supply Chain Responsibility (SCR), which will later be analysed in relation to coffee trade.

As an initial definition of the research question has been given, and a strong literature review has been stated in order to support the research purpose, a theoretical model should be observed for answering to queries and understand the underlying process (Kaplan, 1964; Merton, 1967; Sutton & Staw, 1995). According to Sutton and Satw (1995), theory is "all about connections among phenomena", providing explanations regarding why events, thoughts or acts might occur. In the following sentences, we will present the theoretical model on which we will base our thesis, as well as the analysis of the empirical outcomes gained by the interviews with the San Miguel Coffees and Moyee Coffee. Our

aim is to provide a deeper understanding to the reader regarding how the sustainability and ethical conduction within the coffee supply chain might result in the societal welfare, which in our case is the stimulation of the farmers' livelihood.

In terms of sustainability from a macroeconomic point of view, the most common definition is "development that meets the needs of the present without compromising the ability of future generations to meet their needs" (Gimenez et al., 2012). To bring this mindset to an individual firm, the TBL concept is used as a microeconomic point of view, with the purpose to balance the economic, environmental and social issues (Gimenez et al., 2012). Therefore, one of the theoretical models that we found useful to look at is the TBL (figure 1). As it concerns sustainable sourcing, it is closely related to Operations and Supply Chain Management (OSCM), which makes it a relevant model for us to look at when discussing coffee farming and trade. According to Kim, Colicchia and Menachof (2018) "organisational sustainability can be achieved only through the combination of social (people), environmental (planet), and economic (profit) performance". Furthermore, the authors declare a gap in the literature, where the reviews regarding the three pillars together; people, planet and profit, is not extensive enough. These pillars are seen in a light separately, rather than together (Kim et al. 2018). The problem with a narrow focus such as been discussed, is neglecting ethical issues and lead to failures in the predictions regarding the field of the social aspect (Kim et al. 2018). Further, Kim, Colicchia and Menachof (2018) is pointing out an apparent gap in the literature regarding the people-side of sustainability. This is an essential point to look at for our aim to study the farmers situation and how their livelihood might be affected in the light of sustainable sourcing and Operations and Supply Chain Management.

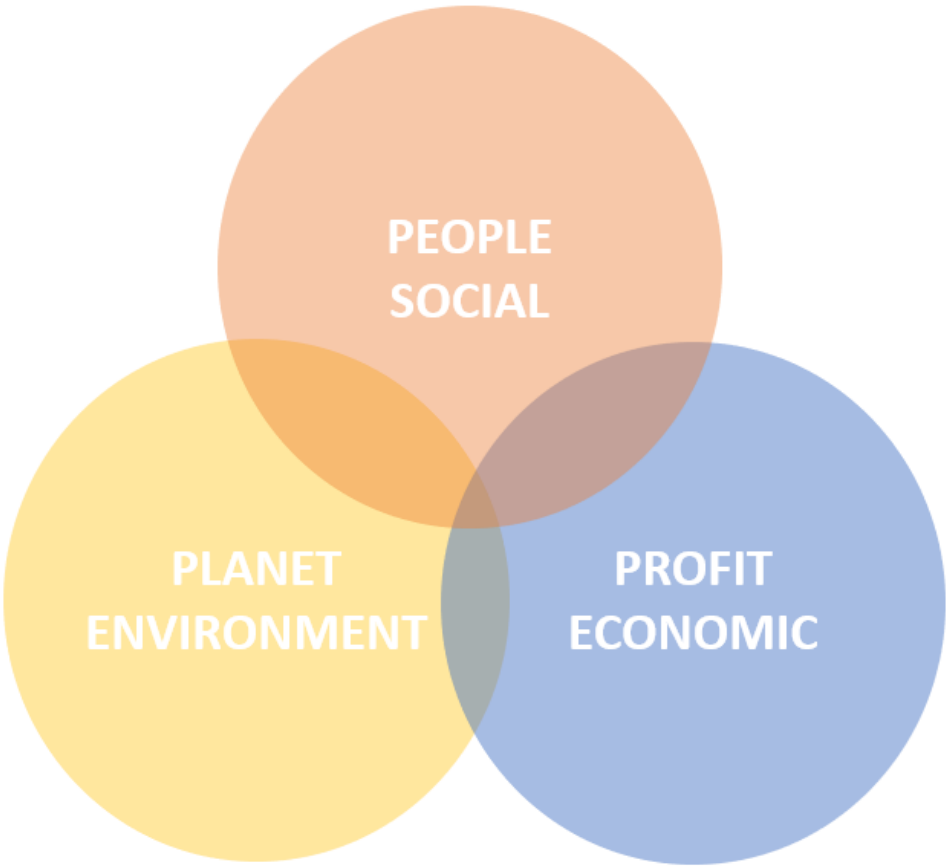


Figure 1: Triple bottom line. Source: the authors

Looking at the social issues in the supply chain, Spence and Bourlakis (2009) examine the development from CSR to SCR (figure 2). In the process, they are referring to the middle stage, corporate social watchdog (CSW) which implies an overprotective degree of moral responsibility for the corporation's suppliers (Spence et al., 2009). The dominant focus becomes the relationship between the corporation and its suppliers. This might be driven by goodwill but can also be to sustain its reputation and hence, more driven on self-interest (Spence et al., 2009). The next stage, which is SCR, can reduce the CSW approach, doing so by spreading responsibility throughout the entire supply chain (Spence et al., 2009). In that sense, SCR goes beyond the CSR way of looking at social sustainability for the entire supply chain. Explained by Spence and Bourlakis (2009), "social responsibility and ethical standards are determined via the partnerships along the chain". Further SCR, it can be defined as the chain-wide consideration of, and response to, issues beyond the narrow economic, technical and legal requirements of the firm to accomplish social (and environmental) benefits along with the traditional economic gains which the firm seeks (Spence et al., 2009). In their article, Spence and Bourlakis (2009)

discuss the insufficiency of CSR, due to the complex and integrated economic context we see in today's supply chains. Hence, the concept of SCR was developed with the aim to achieve social and environmental benefits, as well as economic advantages, which fundamentally are important for members within supply chains (Spence et al., 2009). For accomplishing those benefits, there is focus on responding to issues "beyond the narrow economic, technical and legal requirements of the supply chain" (Spence et al., 2009).

Furthermore, CSR can be considered having a rather egocentric view of the operating environment, as the focus is on the corporation as an entity at the centre of its stakeholders (Spence et al., 2009). As well, CSR can be seen with an individual perspective, where the companies Code of Conduct is the frame for what is ethical. Spence and Bourlakis (2009) claims if we wish "to understand the perspective on social responsibility in the supply chain, we should look to the purchasing ethics of the buyers (Carter & Jennings, 2002) and their individual motivations" (Bakker & Kamman, 2007). To contradict this, as mentioned before, SCR considers the whole chain, thus, goes beyond the responsibility noted in CSR. In addition of doing what CSR is doing in terms of achieving social and environmental benefits, SCR also gives "the legitimacy and possibility of all links in the chain to have a voice", focusing on "genuine partnership approach", and "acknowledgement of different approaches to ethics by different organisational forms within the supply chain" (Spence et al., 2009). SCR uses a partnership approach where collaboration is needed in order to connect the approach with the perception of direct trade. Furthermore, SCR requires a more sophisticated management, as the relationships and partnerships are at the centre when embarking upon social responsibility issues. Each member is committed to the partnership which allows the firms to achieve partnerships that are highly committed and integrated, since it is based on cooperative planning of aims and activities within the supply chain (Spence et al., 2009).

Figure 2: From CSR to SCR. Source: the authors.

In an idealistic world, the relationship between customers and suppliers should be equal. However, Cox (2004) argues that a win-win situation between supplier and buyer is a myth. Rather, it comes down to the power which each of them obtains, which is balanced between them. However, other authors such as Van Tulder et al. (2009) believes in the importance of establishing partnerships through dialogues between suppliers in order to develop positive social responsibility in the supply chain. Further, Spence and Bourlakis (2009) are bringing up previous literatures that are discussing trust factor within the supply chain relationships. They argue that small suppliers are in a weak negotiation position with no other choice than doing what they have been asked to do, as they are dependent on keeping the relationship with the other parties (Spence & Bourlakis, 2009). For a company to achieve its goals and their own interests, they may attempt to influence other members across the supply chain (Munson et al., 1999). Depending on how powerful the companies are, they can achieve this in a successful manner. The type of power that can threaten other channel members is coercive power (Munson et al., 1999). Coercive power enables a type of power dominance that is putting pressure to reduce

costs, deliver in time, requiring inventory control, as well as demands of quality, environmental or social standards (Munson et al., 1999). On the other hand, "a firm has reward power if its management can help other channel members achieve their goals" (Munson et al., 1999), meaning that a company can choose a different, more positive, route to influence their suppliers (figure 3). Ethical issues are created whenever harm is created due to certain power misuse (Munson et al., 1999). Even legal tactics can be questioned in an ethically and morally viewpoint. This could be seen as an important part to consider when looking at different trading methods and supply chains therein, as it can influence the parties in a positive or negative way.

Figure 3: Coercive and reward power. Source: the authors

In their article, Carter and Jennings (2002) are discussing purchasing social responsibility (PSR), and identified ethical issues within the supplier's relationship, which is related to lies and deceiving actions which can be conducted in an attempt to mislead the supplier. According to Atkinson (2003) a close relationship between suppliers and buyers can lead to "ethical problems if representatives get to know each other too well and lose their objectivity as working relationships become personal relationships" (Spence et al., 2009). It is argued that the line becomes blurred between what is considered as a gift versus what is bribing. This thought become interesting to consider when analysing the concept of

direct trade that we are aiming to examine, in an ethical manner. Atkinson (2003) evaluates strategies that find ways to ensure that ethical conductions between suppliers and buyers are being made and suggests that a company's core values are in place before situations related to ethics are arisen (Atkinson, 2003).

7. Methodology

This section provides information regarding the methodology that has been followed for the construction of the current paper. More specifically, it will be presenting the research philosophy, research approach, research method, as well as the research study. Furthermore, the method of data collection will be analysed, presenting the source of our primary and secondary data, as well as more insights regarding the sampling method and the construction of the two interviews needed for the analysis of the current thesis paper. Subsequently, in the current chapter, how the data have been analysed, as well as the ethical consideration will be addressed.

7.1 Research philosophy

According to Collis and Hussey (2013), research paradigm is the "philosophical framework that guides how scientific research should be conducted". A research could be constructed based either on positivism or interpretivism (Collis & Hussey, 2013). Positivism is the research paradigm which states that "logic, measurement and deductive reasoning can be used to study phenomena" (Kelly, Dowling & Miller, 2018). Conversely, interpretivism reflects the recognition of understanding and the need of interpreting a particular subject (Kelly, Dowling & Miller, 2018). In this sense, the researcher bases his study on subjectivity, interpreting the phenomena or theories according to his own perception and understanding of personal experiences (Hovorka & Lee, 2010). Reflecting the above statements and our research purpose, it could be emerged that the research aim will be accomplish on the lead of interpretivism.

7.2 Research approach

The construction of a research paper could be based on a deductive or inductive reasoning (Collis & Hussey, 2013). The difference between the two reasonings could be identified on the way that the research has been approached (Locke, 2007; Nola and Sankey, 2007). More specifically, as Locke (2007) and Nola and Sankey (2007) have analysed, deductive

research approach entails with the reasoning from something general and to something particular. Through the actual approach, the researchers start the analysis of their study from a theory, then they derive hypotheses from it, test those hypotheses, and finally, revise the theory (Locke, 2007; Nola and Sankey, 2007). From the other hand, Locke (2007) declared that inductive approach is the research reasoning from something particular to something general. Contrast to the deductive approach, the inductive reasoning is the process during which researchers make empirical observations about a phenomenon of interest and form concepts and theories based on them (Locke, 2007). Considering the study purpose, the current thesis is approached by the deductive qualitative research. Starting from the coffee supply chain as a general topic and moving towards two particular trading processes, it is believed that deductive approach is suitable for the research paper.

7.3 Research method

As it has been explained in the section of Research Philosophy, the research paradigm that has been identified for the current study is interpretivism. As interpretivists, it was required to ground the accomplishment of the research purpose on subjectivity and authors' personal interpretation and understanding of the gathered data (Hovorka & Lee, 2010). Those data were collected through a qualitative research method, as according to Collis & Hussey (2013), this type of research method benefits the interpretivist philosophy. Qualitative research is perfect in order to address the "how" questions, rather than the "how many" (Pratt, 2009). Even if it does not have a precise definition in any of the social sciences, it is an approach that could be termed as a "direct observation" (Van Maanen, 1979; Mintzberg, 1979). Subsequently, the importance of the qualitative research has been reflected by Yin (2010) as well, who declared that the qualitative approach is for the researchers that seek to "study a real world setting, discover how people cope and thrive in the setting and capture contextual richness of people's everyday life". Considering the above statements and the research purpose, it could be concluded that qualitative study is suitable for the current study. Through a qualitative research, primary data are collected via wide variety of data sources such as interviews or observations (Eisenhardt & Graebner, 2007). For this study's sake, interviews with the organizations, which constitute our case studies, are the main source of primary data. Thus, the followed research strategy is a multiple case study.

As it has been discussed by Yin (2003), case study is “an empirical study that focus a contemporary phenomenon in its real-life context, and where different methods usually are combined”. Similarly to the statement of Yin (2003), in their study, Eisenhardt & Graebner (2007) declared that a case study could be used for “contemporary descriptions of recent events”. Reflecting the declarations of Yin (2003), as well as Eisenhardt & Graebner (2007), we wish to accomplish our purpose by basing our research on the analysis of two case studies. Those two case studies which we are aiming to analyse are firstly, the San Miguel Coffees with farmers in Guatemala and secondly, the Moyee Coffee, whose farmers come from Ethiopia. The major difference between these two coffee productions is the concepts which are implemented when doing trade. More specifically, San Miguel Coffees has focused their trade on using the concept direct trade into their production, with no experience on the blockchain. Our other case study, Moyee Coffee has been in the coffee industry for seven years with not only an intense implementation of direct trade, but also an extensive experience on the blockchain and full transparency with their customers. Considering that blockchain and direct trade are topics with limited literature in the aspects of coffee specialty, we believe that the analysis of two case studies would be suitable, as their examination will address insights into unexplored research phenomenon in order to accomplish research question on how and why (Edmondson & McManus, 2007; Eisenhardt, 1989; Langley, 1999), particularly when the research question is process oriented (Bingham & Eisenhardt, 2011; Langley, 2009). Taking into consideration that the purpose of the current paper is to examine how the coffee farmers might be impacted by the implementation of two different procedures in the coffee supply chain, which will be further analysed by a relevant theory, we could conclude that the research approach is deductive, with the core focus on the qualitative data research.

7.4 Data collection

In the current subsection, we will be presenting the sampling method, as well as, the processes under which all the primary and the secondary data have managed to be gathered. Furthermore, the structure of the interview is a topic that will be discussed and analysed explicitly.

7.4.1 Sampling

As Yin (1994) stated, “case studies are rich, empirical descriptions of particular instances of a phenomenon that are typically based on a variety of data sources”. Considering the research purpose, for collecting appropriate primary data two interviews were the main data source, defining as a unit of analysis the organization. Reflecting that the setting is the coffee supply chain, during the conducting interviews, the interviewees were sampled based on the procedure implemented within the coffee supply chain of their coffee production. Therefore, the first sample is Moyee Coffee, whose coffee production is based on blockchain and the second sample is San Miguel Coffees, whose coffee production is grounded on direct trade.

7.4.2 Primary Data

The collection of data could be considered as an integral part of the research process (Daft, 1983). In every research process, there are two types of data that ground an essential part of the entire research, the primary and secondary data (Collis & Hussey, 2013). This section presents the primary data that have been gathered, as well as which is their source. According to Collis and Hussey (2013), primary data are data generated from an original source, such as an experiment or interview.

Bearing in mind that the current paper is based on two case studies, the primary data were gathered through two interviews which correspond to each of the case study. The first interview was with the owner of San Miguel Coffees, Adrian Cabrera. As for the second interview, it was with the co-founder of Moyee Coffee, Killian Stokes. As mentioned, this thesis is analysed from two perspectives, customers and suppliers. The fact that San Miguel Coffees represent the supplier’s perspective whilst the Moyee Coffee corresponds to the one of consumer’s, indicates that each interview served the analysis, as the research purpose is accomplished after the examination of both perspectives.

7.4.3 Secondary data

In terms of secondary data, Collis and Hussey (2013) in the book, have stated that secondary data are the data that have been collected through existing sources, such as publications or databases. In that sense, the research of all the secondary data was based on electronic research from ABI Inform Global such as ProQuest. From the overall

literature, 33 articles are defined as peer-reviewed and academic, while plenty of secondary data have been found within eleven academic books aiming to answer the research questions.

7.4.4 Interview

According to Collis and Hussey (2013), an interview is "a method for collecting primary data in which a sample of interviewees are asked questions to find out what they think, do or feel". The interviewer might take the role of interpretivist or positivist, depending on the extent by which the interviews are strictly structured (Collis & Hussey, 2013). The interviews of this study were based on an unstructured and open questions, proving interpretivism approach. The interviewees of San Miguel Coffees and Moyee Coffee were asked nineteen and nine open questions, respectively on semi-structured interviews. Due to distance reasons, these interviews were held electronically through Skype and phone calls and lasted 45 minutes, respectively. Through the open questions a wide spectrum of information was collected, as the interviewees were free to add, clarify and develop their answers as required.

7.5 Ethical consideration

7.5.1 Research design, data collection and analysis

Ethical aspects are of importance when collecting data, hence, before each interview extensive research about the organisations were made, ensuring the validity for our research purpose. As it has been mentioned, the current research analysis based its primary data on two interviews conducted in the beginning and middle of February 2019. The one interview from which we gathered insights related to the direct trade, concentrating on a supplier's perspective was with the owner of San Miguel Coffees, Adrian Cabrera. In terms of blockchain and from a consumer's point of view, primary data were gathered through the interview with the co-founders of Moyee Coffee, Killian Stokes. Furthermore, the interviewees were asked the interviews to be recorded in order to transcript and analyse both conversations. Before the interview with Stokes, example of several questions was sent to him via email to give him an idea of what we wanted to ask, allowing time to consider his participation. Further, for the analysis of the Moyee Coffee Case Study and San Miguel Coffees Case Study described in later sections, we confirmed via email the permission to quote the interviewees, for delivering to the readers

their personal perspective as it was stated initially. Both participants willingly agreed to be in the thesis with their names presented. Ultimately, the research paper will be sent to San Miguel Coffees and Moyee Coffee for confirming the authenticity of the findings.

7.5.2 Reporting

In the current thesis paper, in order the main research purpose to be accomplished, both primary and secondary data were needed. In terms of secondary data, peered-reviewed and academic articles were gathered and used, aiming to answer the stated research questions. The gathered secondary data managed to ground not only the literature review, but the entire thesis paper as a whole. Opinions, statements, as well as arguments, stated originally by different authors, were used constituting the main skeleton of the actual research study. Respecting the value and the intellectual property of the original authors, credits to each of them are provided, avoiding, in that way, plagiarism. Finally, the citation has been stated within the text, in the end of paragraphs and sentences, as well as it is provided analytically in the section of Reference List and Appendices.

7.5.3 Trustworthiness

The study is mainly indicating the situation for two stated case studies. Therefore, it could not be precisely generalized upon other trading procedures within the coffee industry. To be able to draw stronger conclusions, it would be needed to gain more data from other companies and further compare with the previous cases.

7.6 Data Analysis

All the empirical data gained from each interview will be analysed through the method of Miles and Huberman (1994), in order to accomplish an in-depth understanding regarding our research aim. Therefore, according to their model, after the conduct of a particular interview all the empirical data gathered should be firstly, transcript (Miles & Huberman, 1994). Thereafter, all relevant data must be distinguished from the irrelevant ones, and subsequently to be categorized by different topics (Miles & Huberman, 1994). Finally, Miles and Huberman (1994) state that the data should be summarized and analytically generalized. Furthermore, the research authors are data and theory driven, indicated that the analysis of the data is based both on theoretical frameworks, existing

literature and "reflection upon active interests", fact that addresses an iterative approach of data analysis (Miles & Huberman, 1994; Tracy, 2013).

8. Findings

In this chapter, the two case studies that ground the current paper will be analysed. Further, the empirical outcomes will be presented and discussed.

8.1 Moyee Coffee Case

Keeping in mind the purpose of the thesis, we will analyse the coffee supply chain under the blockchain concept is actually affecting the livelihood of the coffee farmers. For doing so, we considered cases with a particular experience on blockchain, reflecting that it is a concept currently limited in the academic and managerial area (Francisco et al., 2018). In this sense, Moyee Coffee could be thought as a suitable case to analyse and gain insights regarding the blockchain, as it is an organisation with seven years of experience on the referred concept. After the interview that was conducted with one of the founders, in the following section, the case of Moyee Coffee will be analysed in accordance to the model of Miles and Huberman (1994).

The first two stages of the model of Miles and Huberman (1994) highlight the transcription of the interview and keeping the most relevant empirical data (Miles & Huberman, 1994). To do so, on February 8, 2019 the interview with one of the co-founders of Moyee Coffee, namely Killian Stokes, was held. The interview was based on open questions with the purpose to gather as much information and insights as possible related to the company's background within coffee production, as well as the founders' perception regarding the development and implementation of blockchain technology into their business, aiming to get a deeper understanding while looking from their perspective. Following the model of Miles and Huberman (1994), after the end of our interview, we transcript the entire conversation and identified the most significant and relevant parts of it, through which we could accomplish the desired goal. Reflecting the third stage of the referred model (Miles & Huberman, 1994), we divided the relevant empirical data into three different categories, called "Basic Information", "Empirical Data on Fairchain" and "Empirical Data on Blockchain Benefit".

8.1.1 Basic Information: Moyee Fairchain Coffee Story

Killian Stokes is one of the three founders of Moyee Coffee. The story of Moyee Coffee starts back to 2010 in Uganda, the location where Killian was firstly involved in the coffee specialty, as he was given the chance to be shown lands where coffee farmers are growing one of the finest African beans. According to Stokes, what enhanced his concern was the fact that even if the value of the African beans were great, the farmers themselves were some of the poorest people he had ever met. Ending the hiking day and the exploration of coffee lands, Stokes received an invitation from two African widows to take a cup of coffee, so they could earn the minimum amount of money for feeding, clothing and paying school fees for their children. He managed to observe that those two women were equipped with the needed tools, as well as an open fire in order to quickly milled, roasted, ground and brewed up some delicious coffee. After multiple cups of coffee, Stokes expressed that he was impressed by the quality, fact that led him in buying one kilo of the actual coffee at the price of 10 €. According to him, that day was a considerable and practical economic lesson, as he stated that:

"Coffee is worth 100 billion dollars a year, we drink 2 billion cups of coffee every day, and that is kind of exciting, but yet 90% of coffee growers/farmers live on less than 2 dollars per day, and they struggle to feed their families and struggle to earn a living wage" (Stokes, personal conversation, February, 2019).

Per Stokes the problem that makes the African families suffer in the line of poverty is lying somewhere between coffee growing and roasting. According to him:

"100% of the coffee we drink grows in and around the equator in the coffee belt but over 99.9% of our coffee is roasted in the west and so almost all of the value, jobs, incomes, skills and profits associated with coffee are exported overseas" (Stokes, personal conversation, February, 2019).

Reflecting the problem that he stated above, he decided that by the end of December 2015 he would be actively involved in the coffee industry in order to provide an improved way

of living to the Ethiopian farmers. To do so, Stokes started importing small quantity of the Ethiopian coffee that he tried during his trip, to the Irish market. The outcome was impressive, as Irish people loved the coffee and the demand got risen upwardly. That was the moment when he understood that he was about to do something big for the Ethiopians as he would be contributing to the stimulation of the coffee farmers' livelihood. Nevertheless, Stokes realised that whereas he was aiming to do something big, the way that he wanted to do so was not in a precise accordance with the perception of sustainable business. More specifically, he stated that:

"While the Irish customers loved the coffee and the link to the producers, it quickly became apparent that the model wasn't going to be economically sustainable as a business. It was difficult to find support, in terms of business, legal and financial mentorship, for a social enterprise seeking to boost trade and economic activity in Africa rather than here in Ireland" (Stokes, 2017).

In order to overcome this obstacle, he reflected a course of Springboard that he was taught during his university life in UCD's Innovation Academy, and through its network he met his current business partner Shane Reilly, a person who as he stated, "has the passion to radically change the coffee industry". Subsequently, a second trip to Uganda and Ethiopia followed, where Moyee Netherlands, an Ethiopian Dutch company, was founded, having as its official founder the social entrepreneur Guido Van Staveren. Along with the Moyee Netherlands, the idea of FairChain was generated as well, taking the lead of the company's organizational culture. Starting its journey from Netherlands, Moyee Netherlands was collaborating with over hundred coffee farmers in the Belata Forest in Ethiopia buying their speciality beans at a premium price while training them to double yields and incomes with advanced organic farming techniques. Their work had a deep essence, not only for the variety of customers that were tasting a high-quality coffee, but also for the Ethiopian farmers who, day after day, were getting an improved income remained. Particularly, Stokes shared the following thought:

"By growing, roasting and bagging their coffee in Ethiopia, Moyee was able to offer Dutch companies improved coffee at work, while also improving the income that would

remain in the hands of Ethiopians - approximately €9 per kilo versus €3 per kilo for other coffees" (Stokes, personal conversation, February, 2019).

Afterwards, with the contribution of a small investment given by the Moyee Netherlands, the company managed to expand further, and therefore Killian Stokes and Shane Reilly were led to the creation of Moyee Coffee International, established in Ireland UK. Their aim was to expand the FairChain perception from The Netherlands all the way to Ireland, the United Kingdom and so on. Now, they have managed to have their coffee on sale to independent food stores and a growing number of corporate customers. Further, their passion for coffee and their desire to assist with any possible way the Ethiopian farmers, make them visit a series of coffee shops on weekends, so they can try the coffee and share the perception of FairChain.

We are in 2019, and Killian Stokes, Shane Reilly and Guido Van Staveren are the three entrepreneurs that support such an essential idea. FairChain for them is a way to help Ethiopian farmers to support not only their needs, but also the needs and wants of their own families. As Stokes stated during our interview, the correlation point of the three entrepreneurs is that all of them have realized the importance of coffee, and how its fair trading worldwide might constitute a big change for the Ethiopians. Particularly, he concluded his thought regarding the background of the company by stating:

"This approach is winning us some great customers including Foodcloud, Groupon, Airbnb, Dogpatch Labs and even the Irish Film Board. Meanwhile Moyee's production in Africa is expanding from Ethiopia to Kenya with Uganda firmly on our roadmap so in time we hope to reach those first farmers I met back up on Mount Elgon" (Stokes, 2017).

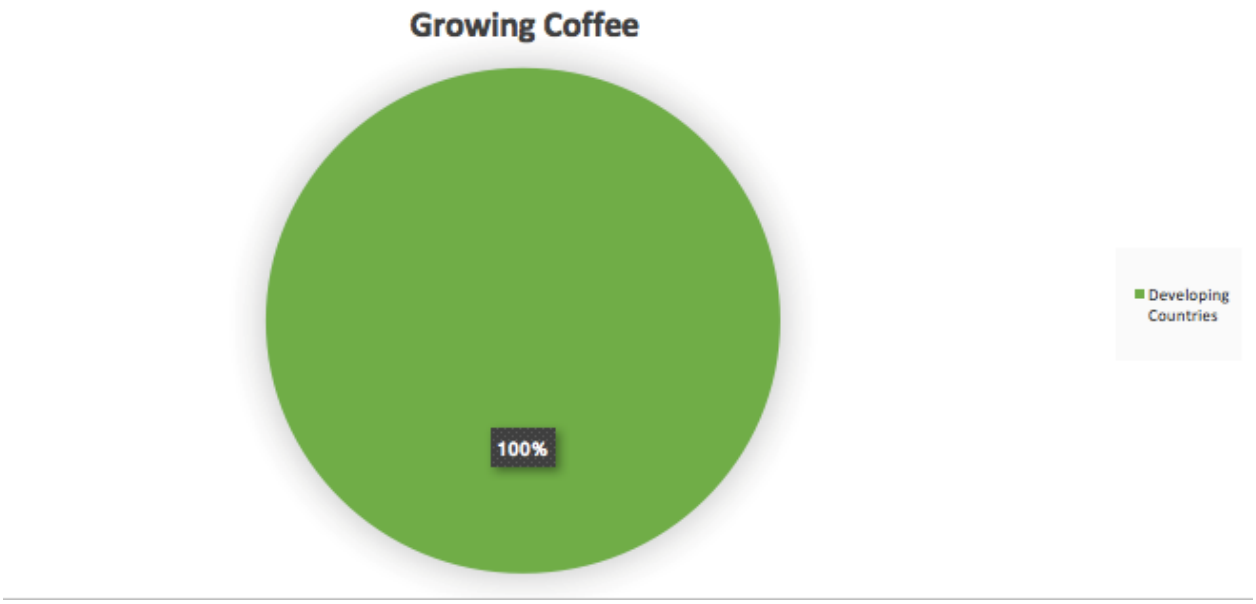
8.1.2 Empirical Data on FairChain

By December 2015, Moyee Netherlands and Moyee Coffee International entered the coffee industry, with the vision to alter the way that customers think about the coffee supply chain. However, with the foundation of the Moyee Coffee the idea of the FairChain was also generated. In that sense, one of questions stated was if the FairChain

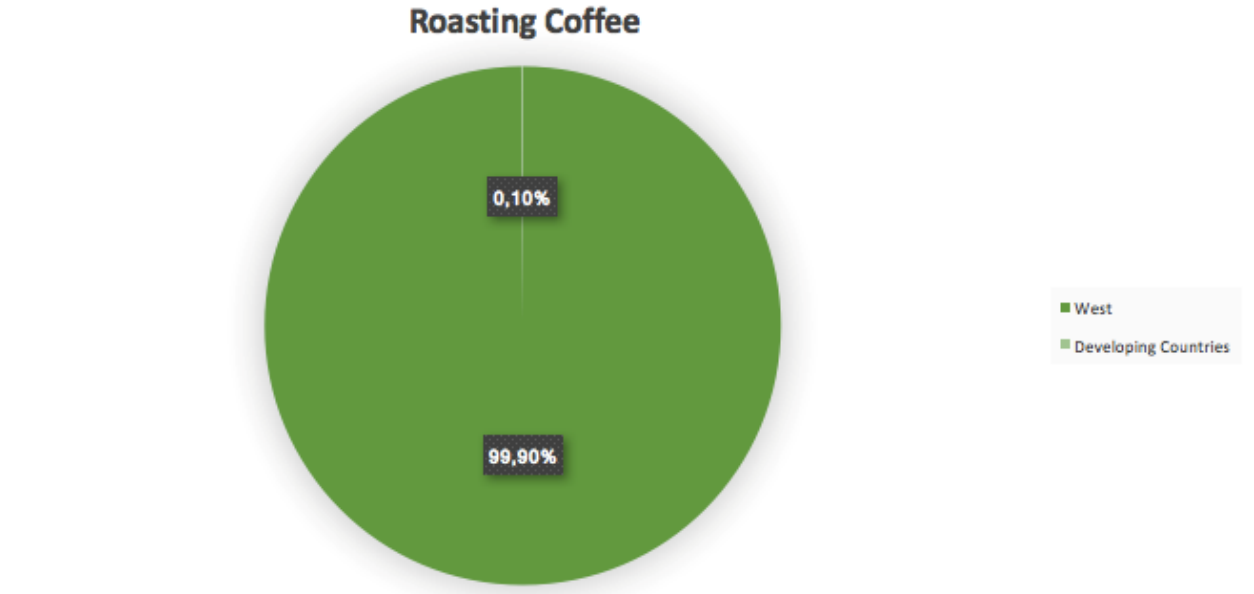
and Moyee Coffee are the same. Stokes expressed that Moyee Coffee is the coffee brand whilst FairChain is a philanthropic movement which strives to raise money from the government, as well as from grants, and eventually it channels and uses that money, aiming the improvement of the value chain for the farmers.

According to Stokes, Ethiopia is the birthplace of the coffee within Africa. Furthermore, one out of four Ethiopian farmers rely their livelihood on the coffee and while their country produces a high-quality coffee 90% of them are dependent on the international support in terms of aid. Therefore, one of the missions of FairChain is to improve the coffee supply chain in a way that they could then support those people, so they will be able to depend their health on medical services that do exist locally. Our first thought back in the interview was that FairChain does not differ essentially from the Fair Trade, a concern that we expressed to Stokes. As he stated, "FairChain goes one step beyond the Fair Trade". He argued that while the Fair Trade was crucial during the past 25 years, as it contributed to highlighting the problem and showing to people the injustice, it is still an idea that has done very little of changing the dynamic or the industry. Particularly, he stated that under Fair Trade, coffee farmers are received 5% or 10% as a bonus, but unfortunately this percent could not be seen as sufficient in order they were able to cover urgent needs of them and their family. Hence, from his argument what could be emerged is that, it is important to contribute to the rapid alteration of the coffee supply chain, so that the livelihood of the farmers can be stimulated.

The stimulation of the farmers' livelihood is in the line of the coffee growing and roasting. Subsequently, we present the difference between growing and roasting the coffee, as it was discussed by Stokes through our interview. This gap that exists within the coffee supply chain, particularly the Ethiopian supply chain, causes instability in life of the Ethiopian farmers, keeping them close to the poverty line, rather than providing an average manner of living.



Data provided by the interview with Killian Stokes - February, 2019



Data provided by the interview with Killian Stokes - February, 2019

Looking at the two pies separately and then comparing them, one could identify the main difference, which is related to the process of growing and the process of roasting coffee. More specifically, in the two pies above is addressed that while the developing countries, and in our case Ethiopia, tend to produce the 100% of a high-quality coffee, the 99,9% of this coffee is traded to the West countries in order to be roasted, leaving only the 0,1% to

the poorest countries. This, as declared by Stokes, could indicate that most of the value, income, jobs and profits that are related to the coffee are distributed overseas, but not to the people that are mostly involved in the coffee production, which are the coffee farmers.

Moyee Coffee started, therefore, creating their own long-term vision, and thus, the idea of FairChain could not be absent. Considering that, although Ethiopian farmers produce a great amount of high-quality coffee daily, they are still seen as one of the poorest party within the coffee supply chain, the team of Moyee Coffee, having as allies the FairChain, its partnership with NGOs and their desire to contribute to the stimulation of farmers' livelihood, they implemented the "original wave" as Stokes called it, which was setting up roastery in Ethiopia, so coffee farmers would be able to roast and ultimately, to bag their coffee, targeting the potential to create five times the impact to Fair Trade. That is a movement significantly beneficial for the farmers, as well as for their families. Particularly, Stokes stated his point of view as follows:

"The original wave means a lot more money and jobs and income that will stay in the hands of the Ethiopians. But we still realize that even in Ethiopia in the supply chain in Ethiopia, the farmer is the poorest person. Because the farmer does all the work, sell their red cherries and that is it. So, the FairChain foundation partners with NGOs and it gathers aid money, grant aid, and it tries to change things" (Stokes, 2017).

The original wave is aiming to change things in the Ethiopian community, as it tries to train the farmers in a way that they will be able to grow and roast a high-quality coffee, and eventually to maximize their own income. FairChain is actively striving to protect the farmers and improving the Ethiopian coffee supply chain, by converging and adding value to each of the steps where Ethiopians are involved in. Stokes expressed during our interview that a crucial role in this attempt play the customers themselves, as through the implementation of blockchain ethical customers can contribute to the Ethiopian societal welfare. Empirical data on blockchain gathered from the interview will be discussed explicitly in the following section.

8.1.3 Empirical data on Blockchain

The current section constitutes the ultimate category in which we have divided all the empirical data, gained from the interview. These empirical results are related to the blockchain, and how its implementation within the coffee supply chain could affect the livelihood of the coffee farmers.

As Stokes explained, the idea of FairChain is to protect the farmers and ensure that their income is as great as possible in order they could survive in an average, if not high, way of living. However, Moyee Coffee has realised that their work could lead to greater outcomes if the power and the desire for contribution is massive. In this sense, this massive power can be found directly to people that taste the coffee, which are the customers. Therefore, Moyee Coffee is being operated on the lead of blockchain, through which customers in the different coffee shops, with which Moyee Coffee is collaborating, can see where the coffee comes from, who was the farmer, how the coffee has been grown or roasted. Further, despite the information related to the coffee supply chain, blockchain provides the opportunity to the customer to see who is getting paid and with what amount, while purchasing a bag of coffee.

For Stokes, blockchain hides its essence in three different layers; farmers payment, farmers livelihood, and stimulation of farmers families' livelihood and societal welfare. More specifically, in a question stated regarding the blockchain, Stokes declared that blockchain has three major benefits towards not only the farmers, but also their families and the community at large. First, through blockchain and the transparency that it provides, customers could be aware of how the coffee supply chain is actually working, and what could be the effect towards the farmers. Using a QR code providing on the coffee package, customers despite the coffee production procedure, can see the assistance that the Moyee Coffee is offering to the Ethiopian farmers. By doing so, the vision of Moyee Coffee, as Stokes explained is to encourage people to act and channel a minimum amount of money from their total purchase down the value chain, in order to support the farmers and stimulate both the working and the living conditions. Quoting the words of Stokes:

"From a consumer point of view, what we want to achieve through blockchain is that a consumer can walk into a shop, pick up a bag of our coffee, and with a scanner be able

to see exactly who gets paid what. Appreciating that farmers do not earn a lot, customers can send them 50 cents from their purchasing power, and allow the farmers community to be able to buy some tools, a sink, or improve their farming" (Stokes, personal conversation, February, 2019).

Reflecting the words of Stokes, the first benefit of blockchain is to empower the customers in order to contribute to the improvement of working life, which will result in the better living conditions. In this sense, farmers will be better equipped, which could lead to a greater production, and thus greater personal revenue. Moreover, the second benefit that is generated through blockchain is that Moyee Coffee empowers the customers to contribute not only to the livelihood of the farmers, but also, they could support the farmers' family or the community at large. Stokes explained that while the customers are willing to channel money from their purchase power all the way to the value chain, they are able specify in which way they want their contribution to be settled. In this sense, customers could support the wife or the children of the farmer, by sending money for food, clothing or school fees. From the other side, consumers can be involved in the community by offering money in order to help a program in the village to be set, such as vaccines support or a nutrition training or mother and child programs. In this sense, the empowerment of consumers in order to act could play a crucial role for the community welfare, as according to Stokes:

"Economics alone will not fix poverty. So, we need social change, we need health care, we need clean water with better nutrition, so what we want to do is to empower the consumers, the coffee fans, to send their 50 cents for an eye operation or to support a program in the village like maybe support vaccines or a nutrition training or mother and child program, instead of sending it to the farmer co-op" (Stokes, personal conversation, February, 2019).

Further, the third benefit that blockchain serves is the transparency. This benefit, according to Stokes, could be considered as the most important one, as it provides a hundred percent honesty between the company and the customers. The fact that, while consumers purchase a bag of coffee they are able to see the story behind it, makes the

transaction and the collaboration transparent, as customers are perfectly aware of who they are going to help, with what amount and what will be the outcome of it. Transparency could be considered as the fundamental principle for blockchain, as according to our interviewee:

"Transparency is to show the consumer or any stakeholder in fact, what has been paid to the farmer from end to end. What has been paid is not only to the farmer but to every step in the value chain" (Stokes, personal conversation, February, 2019).

The Moyee Coffee is a company deeply conscious regarding the coffee supply chain. The team that constitutes the company at large, are people that have an important thing in common; they know how to value the coffee and its producers. Talking with Stokes, made us realise that things that we take for granted might hide a story behind them which is not always pleasant. In our case, according to Stokes, Ethiopian farmers, although they produce a very high-quality coffee in a great amount daily, their status of living remain close, or even below, the poverty line. As MacGregor, Ramasar and Nicholas (2017) stated, even if the coffee's consumption and production is being in an upward slope, the livelihoods of the coffee producers remain uncertain. In this sense, Moyee Coffee all along with the idea of FairChain are striving to change this uncertainty. During our interview, Stokes shared with us that the assistance that Moyee Coffee provides to the its coffee farmers tends to be the double of the one that Fair Trade has been offering. More specifically, as mentioned, Fair Trade has been providing coffee farmers with bonus of 5% or 10% of the total sales. However, FairChain has settled as its own vision to compensate farmers with a bonus of 20% of the total sales, a percentage that could be considered enough in order Ethiopians to start having a stimulated livelihood. Subsequently, Stokes stated that what Moyee Coffee is aiming to achieve in a long-term period, through blockchain, is the equality between how much the company receives and how much it is given to the farmers. Reflecting the fact that the current bonus given to the farmers is 20%, Stokes expressed during the interview, that through blockchain and the security that it provides, the 20% of bonus has the potential to become 50%. Therefore, there will be an equality as both parties, Moyee Coffee and coffee farmers, are going to be compensated fifty-fifty. Particularly, Stokes portrays this phenomenon as follows:

"Blockchain is …just coffee chain from end to end. We want every stage of the coffee chain to be digitized. The benefit of the blockchain vs just an internet page, is we can make sure the data are much more secure and information cannot be changed. For example, if I want to send 50 cents down to the farmer community, nobody can go in and change that 50 cents to 500 dollars or change the destination of where you want to send it. Blockchain adds real security." (Stokes, personal conversation, February, 2019)

8.2 San Miguel Coffees Case

Having examined the case of Moyee Coffee, which refers to how the blockchain contributes to the farmers' well-being from consumer's perspective, in the following sentences the second case on which the actual thesis is based, namely San Miguel Coffees, will be presented. Further, it will be discussed how the direct trade within the coffee supply chain might affect the livelihood of coffee farmers, focusing on the supplier's perspective.

Similarly to the analysis of the first case study, Moyee Coffee, the study of the second one will be in an accordance to the model of Miles and Huberman (1994). The primary step was to transcript the interview with the founder of San Miguel Coffee, Adrian Cabrera. Subsequently, the relevant from the irrelevant data should be distinguished (Miles & Huberman, 1994). Further, according to Miles and Huberman (1994) it is needed to categorize all the relevant empirical data and separate them by different topics. The final step of the data analysis will be to summarise and generalise analytically all the relevant results (Miles & Huberman, 1994).

Starting from the first stage of the Miles and Huberman (1994) method of data analysis, it is important for to share the process of the interview. More specifically, on February 15, 2019 the interview with San Miguel Coffees was conducted, talking to Adrian Cabrera. Furthermore, all the information that has been shared during the conversation was transcripted. Following the model of Miles and Huberman (1994), reducing the empirical results by distinguishing the relevant data from the irrelevant ones, resulted in the third stage of the model, which is to divide into separate categories all the necessary empirical outcomes (Miles & Huberman, 1994). After the transcription and the evaluation of all the gathered data, we divided the empirical data from San Miguel Coffees into three

different categories; “Basic Information”, “Empirical Data on the Preferred Characteristics when Establishing Trading Relationships” and finally, “Empirical Data on Direct Trade”.

8.2.1 Basic Information: San Miguel Coffees Story

Starting our interview, it was important for us to understand the story behind San Miguel Coffees. Cabrera, shared the background of the company, explaining how, when and by whom the company was founded. San Miguel Coffees is a company business, which was passing from generation to generation. More specifically, as Cabrera explained, his family started coffee in 1890, which is 129 years ago. The family member who bought the first farm was a lawyer in the city, and Cabrera’s great grandfather in 1962 was the responsible in managing it. In 1962, the business of San Miguel Coffees got expanded further as a new farm was bought, located in Antigua in Guatemala. That second farm, according to Cabrera, was family acquired, as it is a land purchased by his great-grandfather. In 1992, Cabrera’s great-grandfather passed away. From that moment, the lead of the business’s operation was given to the uncle and the father of Cabrera. Particularly, that was the moment that Cabrera himself was involved in the coffee production, as according to him, he was finding interesting to explore how the coffee supply chain is actually working, from a supplier’s point of view.

The San Miguel Coffees has a particular operation way of coffee supply chain. Specifically, Cabrera explained:

> *“So, it was my uncle who started purchasing coffee from different producers, purchasing the cherry, and the producers would bring the cherry to our mill, and we would process it, so we could approach our clients. In that time, we would be selling coffee to an exporting company, you know. So, we process the cherry, we dry it, we do the whole thing but then, when you have the coffee ready you want an exporter company to sell it to them” (Cabrera, personal conversation, February, 2019).*

After a time period, the family of Cabrera realised that the company was led to an operational growth, fact that made them decide to start exporting internationally. In that time, according to our interviewee, they were very fortunate to acquire important clients.

Nevertheless, those important clients tended to use intermediate companies in order to buy from exporting companies. In that sense, the family of Cabrera realised that trading their product through middlemen could cause risky or even unfair situations for San Miguel Coffees and its farmers. Reflecting the above sentences, as well as the desire of San Miguel Coffee to be working under the concept of direct trade, San Miguel Coffees started to depend its growth only on local trading. Quoting Cabrera's point of view related to their growth:

"That is how we started, and we grew a lot and we grew fast, but it was probably around 10 years ago we started to see how the market shifts very quickly, and we decided that we were not going to be depending on these big accounts. So that's when we started to move into a different direction, searching for direct trade" (Cabrera, personal conversation, February, 2019).

According to Cabrera, San Miguel Coffees managed to be led in growth through trading locally, under the idea of direct trade. As it will be further analysed in the later section, for Cabrera as well as for his family, it is important, or even crucial, to know the person with which they are collaborating. Direct trade provides this transparency between supplier and buyer, an asset that could be possibly overlapped if a middleman was apparent in the coffee supply chain.

8.2.2 Empirical Data on Preferred Characteristics when Establishing Direct Trading Relationships

As we have referred, the main idea of coffee supply chain for the San Miguel Coffees is the direct trade. The perception of direct trade was initially established in the company 10 years ago, after realising the importance towards the relationship between buyer and supplier. During this analysis, in the literature review that we managed to gather, we could not find any point which was referred to possible characteristics or required criteria that both parties need to meet in order the direct trade to be applied successfully. Therefore, it could be considered appealing to ask Cabrera if San Miguel Coffees have specific criteria when establishing a direct trade relationship. In this question, Cabrera answered as follows:

"I would say it is different for different people, because you have the type of clients that would fly to your farm and cup the coffees, take pictures, and then fly back and then say that is direct relationship. There is not a lot of criteria in that, or you can say that their criteria are to step on the farm and take pictures, enough" (Cabrera, personal conversation, February, 2019).

As Cabrera stated, there are not specific criteria that the prospective buyers need to fulfil in order San Miguel Coffees to start the coffee exchange. However, according to our interviewee, it is important for them the referred direct trade to be truly based on the establishment of an essential and honest relationship between both parties participating in the trade. Furthermore, an additional asset that is desired when implementing direct trade within the coffee supply chain, is the transparency. Specifically, Cabrera explained that transparency could be seen as the foundation for the establishment of the referred honest relationship between supplier and buyer, as both parties feel free to express concerns or ideas which may or may not like or agree with. As Cabrera declared:

"For direct trade, there is need to be full transparent, and if they want internal information, they can ask for it and the producer will reply truthfully. So, things like that, you know those conversations, if we were dishonest producers, they would not like to have a direct relationship with us, and if we saw a dishonest buyer… you need to enter these kinds of conversation so that you decide which side are you on" (Cabrera, personal conversation, February, 2019).

All in all, in the question related to the criteria that might be required when establishing direct trading, Cabrera declared that there are not specific requirements that need to be met from both parties. Nevertheless, direct trade needs to be based on a true interaction between suppliers and buyers, which could result in an essential communication and honesty, which in return will make the trading to be more transparent and efficient. In that sense, both parties will be able to share their concerns, thoughts or ideas with one another, and together will elaborate on strategies and solutions in order to overcome any problem that might occur. In the following section, it will be presented and analysed explicitly all the empirical data related to direct trade. These were gathered through

questions that have been asked in order to help us understand what actually direct trade is and how its implementation may affect the livelihood of the coffee farmers.

8.2.3 Empirical Data on Direct Trade

In the current section, it will be analysed the last category in which we have divided all the empirical data related to the direct trade. More specifically, information and personal insights will be presented regarding what the direct trade is and how its implementation within the coffee supply chain could affect the livelihood of the coffee farmers.

Therefore, looking closer to the direct trade, according to Cabrera, every farmer could provide a different terminology, but from his personal point of view, direct trade is all about negotiations between suppliers and buyers that are happening under essential communication and transparency. Linking this with the previous section of the required criteria for establishing direct trading relationships, for Cabrera the referred communication and transparency could be considered as requirements that play a significant role when trading. Cabrera referred to the idea of trust and he explained that when direct trade relationships are settled, the perception of trust is arisen within both parties. Particularly, he claimed that the development of trustworthy relationships makes the two parties more "brothers" than simple partners of trading, during which "there are not secrets" (Cabrera, personal conversation, February, 2019). The statement "there are not secrets", as said by Cabrera, is meant in the sense that despite the communication and the transparency, direct trade requires a face to face interaction from time to time. Through this, both parties are fully aware of the kind of collaboration in which they participate, fact that makes suppliers being involved in the coffee exchange and thus, are becoming a part of the business.

During our interview, in order to make us understand the significance of the transparency and honesty within the coffee trading, Cabrera provided us with the following fact, which he is being dealt with during his career in the coffee trading:

"As partners our roasters can call us and say; hey Adrian, I don't have enough money this year, I'm going to need a cheaper cup. Instead of just removing me from their supply chain and go to buy for a cheaper, they can be transparent and tell me, hey I'm

having trouble. And we meet up with our team and say how can we help" (Cabrera, personal conversation, February, 2019).

Therefore, what could be emerged from the above is that through the transparency that the direct trade provides, suppliers and buyers are having an essential communication and an honest-built relationship, which is beneficial not only for the buyers who receive the coffee, but mostly for the suppliers themselves, who will not be losing a client. According to Wright, Zeltmann and Griffin (2017), when middlemen are part of a coffee supply chain, the coffee farmers tend to be underestimated in terms of their compensation, imposing on the business as well as the relationship that is being developed between the farmers and the coffee buyers. Nevertheless, when direct trade is the foundation on which a coffee supply chain is based, middlemen are not involved in it, making the coffee farmers having interactive relationships with the coffee buyers, as well as providing better compensations which could stimulate their livelihood (Wright, Zeltmann & Griffin, 2017). The idea of Wright, Zeltmann and Griffin (2017) related the direct trade has a correlation point with the beliefs of our interviewee. Reflecting our research aim, it was important for us to gain insights from a supplier's point of view regarding the benefits that direct trade might provide. In that sense, Cabrera stated:

"The thing with direct trade is that if you have any middlemen, whenever your client wants to make a change, the middlemen do not care about you. They are taking care of their clients, and there is nothing wrong with that, but if you want to have a sustainable business you need to know who you are selling to, and you need to know how your client is growing. So, having true direct relationship allows you to be more partners than suppliers, so that makes you a part of their business" (Cabrera, personal conversation, February, 2019).

Eventually, Cabrera concluded his thoughts by stating that coffee trading under the direct trade is a "win-win" situations, during which both parties tend to be winners at the end of the trading procedure. More specifically, he highlighted the importance of the direct trade within the coffee supply chain, as he declared that without the direct trade relationship

this approach would be impossible since buyers would only see transactions rather than humans behind the purchase.

9. Discussion

This chapter links empirical data, as previously discussed, with the theoretical models that was chosen, providing relevance to each of them.

9.1 Results

Drawing on conclusions by looking at our empirical findings from the interview regarding FairChain, it is a concept that is seeking to promote the welfare of the coffee farmers, making the value chain for the farmers substantially better. In this sense, they are following the concept of TBL, which has been discussed earlier as having the purpose to balance the economic, environmental and social issues. This can also be seen as the three pillars of people (social), planet (environmental) and profit (economic). We can ultimately argue that in the case of FairChain, according to their Impact Report (2017), they focus on all these pillars; "FairChain consists of three important parts: Economic, Social and Environmental" (Moyee Coffee, 2017). Furthermore, in their impact report is stated "admittedly, over the past three years, our focus on economics and social good has overshadowed our environmental agenda. Yet like any socially driven initiative, our environmental footprint is very much on our minds; moving forward, we are addressing many of the eco obstacles standing in our path" (Moyee Coffee, 2017).

As it has been seen in the section of the theoretical model, there are major concerns regarding not considering the three pillars together, but rather separately. According to Kim et al. 2018, it would be especially problematic to focus on a narrow path and neglect ethical issues, as it leads to failures in the predictions regarding the field of the social aspect. In the case of Moyee Coffee, the idea of FairChain is considerably compliant with all the mentioned pillar. More specifically, as for the economic part, FairChain is increasing the employment in their roasting facilities in Ethiopia, providing positions to the Ethiopians. Furthermore, there is a rise of money from sources such as the government, as well as from various grants. In terms of the social consideration, FairChain ensures a fixed compensation for all the coffee farmers, even if it would mean Moyee Coffee paying out a premium. Finally, regarding the environmental pillar, Moyee

Coffee states that through FairChain, there is margin for further improvement. Particularly, comparing Moyee Coffee with the majority of their competitors, Moyee Coffee's environmental footprint is ranked relatively lower.

Looking at San Miguel Coffees in relation to TBL, they are aiming to create an environmentally sustainable operation through the way they use their water supply when handling coffee bean processes. Furthermore, they have a compost program which uses a practice that benefits the farm and community in a sustainable way. Implicitly, this connects to the planet and sustainability part of TBL. The people aspect within TBL is also considered as an important factor to San Miguel Coffees, as it is believed that "growing the farm in a sustainable way starts with growing a community" (San Miguel Coffees, n.d.). Further, San Miguel Coffees considers the well-being of their workers, as it provides a health clinic where "medical, dental, and pharmaceutical services are provided for the employees, suppliers and their families free of charge" (San Miguel official website, n.d.). San Miguel Coffees also uses parchment from coffee beans to fuel their drying mills. Instead of purchasing lumber that is needed to fuel the dryers, by using the parchment leftover from coffee beans, San Miguel Coffees is contributing both to sustainable and responsible business conductions. In that sense, there is a decline in costs, which entails that the profit part of TBL is accomplished.

With the purpose to look closer upon the blockchain technology, the theoretical models of CSR and SCR are going to be evaluated in relation to this concept. CSR and SCR are both at their core purpose caring for social and environmental benefits as well as economic considerations. SCR goes a step beyond by looking at social sustainability for the entire supply chain (Spence et al., 2009). As it has been mentioned, the use of blockchain technology within the supply chain could be seen as an attempt of social sustainability, which could protect the farmers and their livelihood. Hence, SCR is undertaken within the blockchain technology, as information is openly shared regarding who in the supply chain is paid as well as the amount of money that they are getting paid. This in turn is leading to a possibility for anyone in the supply chain to act in a responsible and sustainable way. However, it might be discussed to what extent this type of transparency changes the consumers perception and lead them to make more environmental and social sustainable choices. Knowledge is only one step on the way to discover and develop a more sustainable way of living, considering the farmers who are

given a low compensation while people in developed countries have the possibility to get coffee at a lower price (Wright, Zeltmann & Griffin, 2017). Acknowledging this unfairness could lead to the alteration of the living standards for people in the poorer countries. In that sense, the purchasing power of customers has a significant potential to make the supply chain profits to be equally distributed. Nevertheless, as discussed in the theoretical model, the idea that the relationship between customer and supplier should be completely equal might be defective. The power balance, that was discussed, lead to a need of developing partnerships and relationship between the parties in the supply chain in order to establish social responsibility. As it has been seen earlier in the analysis of San Miguel Coffees, the personal relationship between supplier and buyer is at the core, making it easier to develop positive social responsibility in the supply chain. It is about a win-win situation for all parties involved, and for that reason also here transparency and communication are seen as an essential part.

Within the blockchain technology, ethical considerations are undertaken due to the transparency it offers to the broader picture. As it has been discussed in the theoretical model, the suppliers have a weak negation position within the supply chain. However, it can be interpreted that the use of blockchain technology helps small suppliers to gain a stronger position in the market, as they do not rely on the middlemen. Moreover, blockchain is enabling the small suppliers to get their fair share by a simple, transparent and effective manner show their beans on the market, making it up to the final customer to decide on whether or not giving the price that is promoted by the farmer, rather than making it up to the middlemen to decide on price, which in that way affecting the amount of profit. In the FairChain situation, the farmers are going a step beyond since they are also roasting their beans before selling, with the purpose to gain a larger piece of the final profit by conducting more economic activity within the country. Members across the supply chain can be influenced, with different strategies and ways to go about, depending on the type of power the company is obtaining. Coercive power and reward power were discussed, and to link with our empirical findings, the latter seem more relevant in the case of Moyee Coffee, as it is more likely that management is helping other channel members to achieve their goals. In the case of direct trade, even if the relationship is still aiming to be transparent, the final customer has little chance to see the whole supply chain and interaction between suppliers in terms of where the final distribution of money is going. In that sense, the power structure might differ greatly. The living standard could

have a role in how the power structure is developed. In the introduction of the book written by the author Hans Rosling, a picture of the different living standards are mapped out, where Guatemala has a higher living standard compared to Ethiopia (Rosling et al., 2018). Therefore, in the case where the supplier already in a good economical and living standard situation, as for Guatemalan case, the danger of coercive power that can threaten other channel members is considerably lower. In that sense, the reward power is more likely, and the company adopts a different, more positive, route to influence their suppliers. Comparing that to the case of the farmers from a country such as Ethiopia, where the living situation is significantly worse, the risk for a direct relationship is higher, since they have a weaker negotiation position to begin with. Thus, this could explain the San Miguel Coffees' preference towards direct trade and not blockchain technology and vice versa.

While looking closely at the core of the ideas regarding blockchain and direct trade, similarities and differences can be portrayed. On the one hand, blockchain is concentrating on digitalizing the entire value chain, from farmer to the end consumer. Further, it allows full transparency and the empowerment of the final consumer, since they can see exactly "who in the chain gets paid what" (Stokes, personal conversation, February, 2019). On the other hand, direct trade focuses on the close and transparent relationship between farmer and coffee bean buyer (Cabrera, personal conversation, February, 2019). With direct trade, there is no middleman who interposes on the business, as well as the relationship between the coffee farmer and coffee buyer (Wright, Zeltmann & Griffin, 2017). As direct trade offers transparency, a possible confusion might be arisen (Spence et al., 2009), in terms to what is considered substantial relationship and what a bribery. In that sense, CSR and SCR are theories that contribute to the identification of the ethical and responsible perspective.

10. Conclusion

This chapter presents contributions, recommendations, limitations and future research regarding how blockchain and direct trade could possibly benefit the livelihood of the coffee farmers.

10.1 Contribution

As it has been mentioned, through the actual analysis we aim to contribute with knowledge that has the potential to partake a positive social impact. The outcome of this study, in which we have been examined the coffee supply chain in relation to the farmers livelihood, could potentially have an impact on the average coffee consumers' way of thinking when purchasing their daily coffee. Bringing the concentration on the consumer's perspective, when coffee supply chain is operated under blockchain, the consumer sees the coffee's background, all the way from where it comes, who grew it and under what conditions. Moreover, through the purchase that the customers materialize, they are aware that a part of their purchasing power is delivered to the coffee farmers. More specifically as Stokes (2019) stated during personal conversation, blockchain could provide a revenue to the coffee farmers of 20% above the market price. This possibly could be seen as a small amount from the side of developed countries. Nevertheless, looking at the situation of the developing countries, this minimum amount that consumers offer, is a massive opportunity for the coffee farmers to increase their social status, improving both the living and working conditions.

Bringing the focus on the supplier's perspective, the direct trade enables the transparent and honest relationship between suppliers and buyers. By seeing the trading process as a partnership rather than as a typical retail procedure, could make both parties benefit, as the direct trade allows negotiations between suppliers and buyers. Through these negotiations, trading or supply issues can be discussed so a correlation point can be found. In cases of economic problems of the buyer or coffee production inconvenience of the supplier, the two parties can communicate and find a solution, without excluding one another. In that way, buyers are still supplied with coffee whose origin and quality are known, and suppliers receive a fixed revenue which could contribute to the enhancement of their lives or even, the coffee production equipment.

10.2 Recommendations

The newly material of information regarding blockchain and direct trade related to coffee trade is yet limited. However, through the combination of primary and secondary data, analysed in the actual research paper, a relatively steady foundation of knowledge in that specific area managed to be established. The two perspectives emerging from the research questions caused the viewpoint of the importance for people to become aware of the coffee supply chain and the unequal situation that exists yet today. The knowledge that is being provided through the analysis of blockchain and direct trade, contributes to a wider awareness for people while purchasing coffee. As mentioned before, knowledge is only an important factor in the process in order to create alterations and bring equality to the coffee farmers compensation and livelihood.

10.3 Limitations

The actual thesis has been analysing the coffee supply chain under blockchain and direct trade and how through them the livelihood of coffee farmers could be impacted. The accomplishment of the research purpose was based on two case studies and the data gathered from the conducted interviews with the founders of Moyee Coffee and San Miguel Coffees. Therefore, one of the limitations that could be arisen is the number of the interviews constructed, as well as the amount of case studies that were used for the analysis of the thesis. In that sense, it could be assumed that, if the actual project would be conducted under a longer time period, more cases and interviews could have been analysed, resulting in a wider spectrum of data. These data could be collected from other coffee producers from all over the world, implementing either direct trade or blockchain. Hence, their insights, as well as information given from Moyee Coffee and San Miguel Coffees could be analysed, combined or compared, providing possibly different empirical findings.

Further, another limitation that could be identified is related to the interview participants. Specifically, in the case of Moyee Coffee, the interview was held with one of the founders who is collaborating with Ethiopian farmers. Conversely, regarding the case of San Miguel Coffee, the interviewee was the owner of production, as well as the farmer. Therefore, it could be hypothesized that if the authors were given the chance to interview

Ethiopian farmers as well, new data and, possibly, different findings could be gathered in relation to blockchain.

10.4 Future Research

For the purpose of this thesis two case studies have been chosen to do a in depth analysis of the coffee supply chain under blockchain and direct trade and their impact towards the life of coffee farmers. Nevertheless, as referred previously, the current project was conducted under a limited period of time and word counts. Therefore, as a future research would be appealing to collect a broader range of case studies within direct trade and blockchain and compare them, aiming to get a more versatile profile of the areas. Further, another future research that could be conducted is the analysis of another Guatemalan coffee production, similar to San Miguel Coffees, which uses blockchain instead of direct trade in their supply chain. In this sense, it would be interesting to compare those two Guatemalan coffee sources and analyse their choice of implementing direct trade and blockchain, correspondingly. The similar research is seen interesting from the perspective of Moyee Coffee and another Ethiopian coffee supplement, which instead of blockchain, the latter is implementing direct trade. Subsequently, reflecting the limitation related to interview participants, it seems appealing to analyse the concept of blockchain given insights from farmers' point of view. Eventually, it would also be interesting to take into consideration the different living standards, in this case between Ethiopia and Guatemala, so it can be further analysed whether the living status could have an impact on the trading process choice under which the coffee supply chain can be operated.

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12. Appendices

12.1 Appendix 1: Transcript of the interview with Killian Stokes, co-founder of Moyee Coffee, conducted on February 8, 2019.

There were two parties in the current interview. The interviewee was Killian Stokes and the interviewer was Evelina Edwardsson, noted as "K" and "E", respectively, in the actual transcript.

K: Hello

E: Hello, It's Evelina, can you hear me?

K: Yes, I can, can you hear me ok? I'm having the speakerphone on

E: Perfect, yes, I can

K: So, talk to me, you are doing some research in college, you're doing your thesis is that right?

E: Yeah exactly, I can tell you my background. I'm currently studying my last year at university here in Sweden, International Management. We are doing our thesis now. And personally, I'm a coffee fantast, so it was like a natural choice to investigate about something about coffee basically. So, yeah, last summer actually I meet a farmer from Guatemala, and they are doing direct trade, so I got really intrigued to know more about that and how that would affect the farmers and things like that… so it was basically how it started. And then we did our research and found you guys and about Blockchain, and it's a super interesting concept as well.

K: So, the course you are studying is, what, sustainability, or business or management?

E: International management

K: Ok so what do you need from me? Do you want me to tell our story of how we set up, or do you have specific questions or how do you want to do it?

E: So basically, we want to understand how the coffee supply chain works, and how the coffee farmers are affected in terms of living standard and everything like that, how Blockchain relates to coffee trade as well.

K: So, ok, sure. If you connect me on LinkedIn, you can read an article that I wrote why I set up Moyee Coffee Ireland. Shane and I are the two founders of Moyee Coffee Ireland UK, and the original founder of Moyee coffee is Guido van Staveren he is a Dutch social entrepreneur. And what is common to Guido, Shane and myself is the motivation for getting in to coffee, we all are found of coffee and we all appreciate that all coffee, 100%, comes from the equator (the coffee belt). Brazil, Colombia, Uganda, India, Ethiopia; all of this kind of places are where our coffee is grown. And coffee is worth 100 billion dollars a year, we drink 2 billion cups of coffee every day, and that's kind of exciting, but yet 90% coffee growers/farmers live on less than 2 dollars per day, and they struggle to feed their families and struggle to earn a living wage. There is a great report you should look at from Oxfam called Ripe for change (https://www.oxfam.org/en/research/ripe-change), and it highlights the power that supermarkets have, you know you have 7,5 billion eathers on planet earth, you have 1,5 half billion farmers and you have just 300 companies who control the food chain. So, they have all the power, they capture all the profits and they design business model, so it leaves farmers poorer and executive's billionaires, so, that is kind of how coffee is. I was working in the eighth sector, I was a corporate fundraiser in Uganda and that article on LinkedIn will give you more detail, but basically, I was learning that I was raising money to give poor ppl money, free money, aid money, and then I realized that, hang on, these poor ppl are growing amazing coffee, they are hardworking and they are growing great coffee. Why don't we just pay them a proper price for their coffee. So, what I also learned is that farmers maybe earn 30 cents on a kilo of cherries, and that is less than one percent of the street value of coffee. So, what you and I would pay for a coffee in a supermarket, as in a bag, or even what you'd pay in a coffee shop for a cup of coffee, a farmer gets a tiny, tiny percentage of full work we are handing over. So within coffee thou, it's not ice cream it's simple enough, we got

farmers, you then have a washing station where you depulp and then do a little process where you turn it from the red cherry to a green bean, or to a parchment bean, you do some drying and then you do some hulling where you get rid of the skin on the outside and then you roast your bean, and that's it, once your beans are ready roasted you put it in a bag, one way valve to keep the oxygen out, and allow the beans to still settle and for gases and stuff, but, that is basically it, and then your product is ready to sell. So, it is not rocket science, roasting does not need to happen in the west. We believe.. so what we started to learn, look, these ppl grow and produce an amazing product, their countries sell an amazing product, but their countries are still poor, 90% of coffee growing countries still rely on international aid, and the coffee farmers live on less than 2 dollars a day. So, the more we learn about this the more we realize, hang on, this is crazy. So, what we've come up with FairChain coffee, not Fair Trade, we think that Fair Trade has been good for 25 years at highlighting the problem and showing us the injustice, whereas has done very little of changing the dynamic or change the industry. They maybe give the farmer a 5 or 10 percent bonus but that is not enough, you got to change things, you got to change (??). So, our original wave our first wave was to set up a roastery in Ethiopia, to roast their coffee and bag the coffee, so that has the potential to create 5 times the impact to Fair Trade. So, it means a lot more money and jobs and income will stay in the hands of the Ethiopians. But we still realize that even in Ethiopia in the supply chain in Ethiopia, the farmer is the poorest person. Because the farmer does all the work, sell their red cherries and that is it. So, we have the Fair-trade foundation and we have Moyee, and the FairChain foundation partners with NGOs and it gathers aid money, grant aid, and it tries to change things. So in terms of farmers, we realize that, ok, they need to do more than sell red cherries, they should really sell green beans, so we are in the process of buying a washing station which we hope to hand over to the farmers, give them the ownership of the washing stations, so that they can actually sell the group that is known as parchment coffee. So that is green beans that has not been wholled(?).

E: Parchment coffee?

K: Yes, I believe you are familiar with the coffee stages, coffee grows on a tree looks like a cherry, you take the flesh of the fruit and the stone in the center is the actual coffee bean. And when you take the stone out of the cherry you have to wash it, soak it in water for a while, wash it and bring it out to the sun and dry it and then that gives you parchment coffee, because those coffee beans still has a paper like skin on them which needs to be

wholled, to grate that skin off, and once you take that skin off then they are green beans and ready be roasted. So, you medium roast, or dark roast or light roast, whatever, it is your call. So that is green beans. So yeah, we are training our farmer to be better farmers to grow more crops, to grow better quality crops, so we can maximize their income, where we are working on buying a washing station and handing that over to the farmers so that they will be able to add value in their community and earn more for parchment coffee as supposed to selling red cherry. And yeah, then we have the roastery, where the coffee is roasted and bagged. So where Blockchain fits in to all of that is, you know we are also looking into other projects maybe to buy extra land to give farmers larger crop sizes to really, because no matter how hard you work one acer of land or one hectare is not necessarily produce what you need or want to income wise, so we have one scheme that we trying to get founded which would be that we buy from depleted land and we would reforest that land, and hand it out to farmers in three acer patches, hand it out to smart farmers or progressive ones and help them earn a profitable being very successful on larger plot sizes, you know, because we think the one acer thing is.., too many ppl own one acer, better off if some of these people go into the cities and getting a job and some peopel just being an effective farmer. As supposed to both being a farmer.

E: Ok. So Blockchain…

K: So, in terms of Blockchain, so from a consumer point of view what we want is that a consumer can walk into a shop, pick up a bag of our coffee, and with a scanner be able to see exactly who gets paid what. So, the first thing we want to do is digitalize the value chain from end to end, from farmer to cup, and we want to pay everybody in that chain digitally, so we really want to stop pay farmers with cash because we don't want to drive into the (…) of cash, we want to have digital cash for the farmers and pay them on their mobile phones, or pay them into a local bank account. So that is a **major goal**, that's **one benefit of Blockchain**.

The second thing is if the consumer can see that on their phone, you know first they buy their coffee and click to QR code on the bag and it takes them to a website or they can open a micro size, eh, so the consumer in the store can see who gets paid what, and then the consumer can do is channel money down the value chain, to support the farmer. So that is the **second** part of blockchain. It is that they are saying; ok I like my coffee, I like that this company is helping these farmers, but I appreciate that these farmers are not

earning enough. So, I'm going to help the farmer co-op maybe send them 50 cents from my purchasing power, you know from what I pay for the bag, and allow that farmers community to be able to buy some tools, a sink, or improve their farming. And one of the things to know is we as a business we pay our farmers 20% above market rate, and so, in the first part of the blockchain this **transparency** which is to show the consumer or any stakeholder in fact, that from end to end anyone can see what has been paid to the farmer. And what has been paid not only to the farmer but to **every step in the value chain**. So, we pay 20% extra so the consumer can see, oh, ok, the market price for the coffee were 13 or 11 BRR and Moyee is paying the farmer 13,5 BRR. So, they can see that on every single transaction. So full transparency, second thing is that we allow the consumer to go, ok I like what you are doing, I want to help, I want to help these farmers out of poverty, and donate 50 cents of my purchasing power and send it down and I'll decide to send the money out as a loan or support the local co-op or buy ? and tools or pay for some training for farmers. So that's the second part. The third part is we appreciate that change in the economics is not the only thing that needs to change, economics alone will not fix poverty. So we need social change, we need health care, we need clean water with better nutrition, so what we want to do is to **empower the consumer**, the coffee fan, take their 50 cents from the price of the bag that they just bought and instead of sending it to the farmer co-op, they can send it down to pay for an eye operation or to support, you know, some help program in the village, like maybe support vaccines or a nutrition training or mother and child program.. So, **the three things** that Blockchain gives is the ***hundred percent transparency***, so everybody can see who got paid what. Second thing is that it lets the ethical consumer who is excited about coffee to ***support their coffee farmers***, to tip the farmer, and the third thing is that it allows that same ethical consumer to instead of tipping the farmer to tip the farmer's wife, or tip the farmers kid, by sending the money down to pay for, you know, ***positive externalities*** as you call them.

So, in the work that we do what we try to do is create shared value chains, so we do want to disrupt the coffee industry in the way it does business. And, so we want to create **shared value chains with positive externalities**. And the positive externalities are those social and non-economic elements that we want to help fond and support. Does that make sense?

E: Yeah definitely, can I ask something, so you say you pay the farmers 20 percent above market price, and you are able to do that and still get profits yourself?

K: Yeah because if you think about it, we still not using our marketing budget, we are reducing our marketing budget down, we take money out of our marketing budget, and we give that money from the marketing budget, you know constitute the 20 percent bonus for the farmer. And our thinking is instead of paying for those advertisement, why don't we do something really nice for farmers, tell people about it and hopefully they will tell everybody else and word of mouth will get around.

E: Yeah that makes sense.

K: So, in many ways the marketing budget, which is becoming massive in many coffee companies, we are like, screw the marketing budget, use that money to help the people who grow our coffee, the people who are the most important people in the chain of coffee, without them we don't have coffee!

E: Definitely, I totally agree. It's a very important question, and it's horrible when you think about it how unequal it is... yeah so, it's a great thing what you are doing.

K: Yeah so, we think it has potential, the blockchain application we think can be applied to many different industries; foods, chocolate, coffee, wheat, you know, anything. Any system or any food supply system where the consumer wants to see what the person back there is getting paid. You know. We empower the consumer with that data, the consumer will make decisions you know. They'll support and give their loyalty to the brand. As supposed to some slick add, you know.

E: Yeah…

K: So, I don't know, I send you our impact report 2015, that's worth reading. And I mean you have our website and there is probably some good material on the website

E: Yeah, definitely. I did read the impact report that was really good

K: Yeah it is a great document and it really explains with diagrams there just what we are trying to do, so.

E: So basically, Blockchain is helping, like, to create this equal split in the value as you were talking about, 50 % to them and 50% to us, is blockchain one of the enablers…?

K: Blockchain is …just coffee chain **from end to end**. We want every stage of the coffee chain to be **digitized**. The benefit of the blockchain vs just an internet page, is we can

make sure the data is much more **secure**, make sure that all the information is honest, the legitimate that **cannot be changed**, and we can make sure that when you try to send money down the blockchain that that information is not changed as well. So, if you the consumer pledge I want to send 50 cents down to the farmer community, nobody can go in and change that 50 cents to 500 dollars or they can't change the destination of where you want to send it. You know, blockchain adds real security. Otherwise you can do it on the website, but this just adds some real levels of security and that security is what it impost.

E: So blockchain it works like the farmer inform all the steps basically? Is that how... they put it in etc...?

K: the farmer will only put in **one step**, when the farmer get to the washing station, the managers at the washing station when they buy the red cherries from the farmer, they will record the farmer, you know, they will record the sale, and then they'll put money into the farmers digital account. So, its some challenges at that, what we call the first mobile farmers, because not all farmers have mobile phones. But still, we will set them up with an account on our system and we will acknowledge it and allow them to cash that money out, … . You know. I mean what I suggest is that if you have any key questions, shoot me over a list of questions that would be, and then I can respond to them. Otherwise its up there and the impact report. I'll see what I have on Blockchain that I can maybe send to you (?). But its those three things; the hundred percent **transparency**, **empowering** the consumers to channel funds to the coffee farmers, and the third point is to empower consumers to channel **funds to third party**, to you know NGO's. And that is kind of the simplest, blockchain is basically those three steps, and then what we are doing we want to disrupt the value chain of coffee and make it fairer. 50/50, more of the money staying in the country of origin, and then within the country of origin we want to cut out the middleman and make sure that **everybody involved earn a living wage**, and that particularly include farmers.

E: Cool. So, can I just ask, so FairChain and Moyee coffee, is it like the same thing?

K: Moyee coffee is the brand of the coffee, FairChain is the philanthropic, Fairchain is the foundation, it raises money from the government and from, you know, grants and then it channels that money and uses that money to improve the value chain for the farmers.

So, you know, we do farmer training, we're buying the washing station with grant money, we're building the Blockchain... it does various projects that will benefit the farmers.

E: Ok, so it's kind of separate.

K: Yeah, it's like the foundation, whereas Moyee is the brand. And yet, Moyee is an ethical brand, it's a social enterprise so it does a lot more money goes back to the farmers. But it's not just a business that need to make profit, it's a business that sell really good coffee, really good ethical coffee to ethical consumers I guess, or interest parties.

E: And right now, you're only doing this in Ethiopia or...?

K: We're moving into other international territories other than Ethiopia, we are looking at Kenya and other African nations very soon.

E: Cool, that's great

K: Alright! Look, I got to go here but if you do have any questions please just shoot me an email and I'll try to get back to you soon.

E: Ok, thank you so much I really appreciate it.

K: Not at all, not at all, been very nice talking to you.

E: Thank you, enjoy your weekend.

K: You too, take care, bye.

12.2 Appendix 2: Transcript of the interview with Adrian Cabrera, owner of San Miguel Coffees, conducted on February 15, 2019.

There were two parties in the current interview. The interviewee was Adrian Cabrera and the interviewers were Elena Giannisi and Evelina Edwardsson, noted as "A", "E" and "EE", respectively, in the actual transcript.

EE: Hey! How are you?

A: I'm well, can you hear me?

EE: Yes. It's nice to finally talk to you. Are you in Costa Rica now?

A: Yes, I'm doing kind of an exchange program that we do with this company... We have a collaboration with Fabricio, do you remember Fabricio as well from Brazil?

EE: Yes

A: Fabricio and this other company in Costa Rica and we work together the year around. So, I'm spending a couple of weeks here.

EE: Nice! I've seen your Instagram, I'm jealous! *small talk...* Elena here is from Greece. We study together, and currently we are writing together the thesis. Regarding our project, we are interested in how the coffee supply chain is working under direct trade and blockchain, and how either trading processes might affect that coffee farmers. And that's why we want to talk to you about direct trade since you are an expert in that area.

First of all, asking permission for recording the conversation and using your name in our thesis? Just for our own purposes and don't get anything mixed up…

A: Yes, it is alright.

E: Ok, so we prepared a couple of questions that we would like you to answer. Here is the first one… could you please explain a little bit of the background of your coffee farm?

A: Ok. My family started coffee in 1890, 129 years ago. Actually, the family member who bought it he was a lawyer in the city. And in that time, it took them two days by horseback riding to get where the farms are today from the cities. So, it was a pretty big change in the family's lifestyle (…). It was my great grandfather in 1962 that was managing that original farm but in -62 he decided to purchase a new one, next to that farm in Antigua in Guatemala, and it is family acquired. So, my great-grandfather was third generation if you want to see it like that. So, he started a new project also in Antigua and he was very passionate about agriculture you know very passionate about growing coffee and growing different things, such as roses. He was not a bad businessman, but it was not what he enjoyed.

E and EE: Ah okay!

A: So, he passed away in -92 and that's when one of my uncles and my dad started to get involved in the business, and they entered the business with some more business minded

idea of coffee. So, it was my uncle who started purchasing coffee from different producers, purchasing the cherry, and the producers would bring the cherry to our mill, and we would process it and we would start to approach our clients. In that time, we would be selling coffee to an exporting company, you know. So, we process the cherry, we dry it, we do the whole thing but then when you have the coffee ready you want an exporter company and sell it to them. So as a family the operation started to grow, we decided that it was time for us to start exporting our own coffee, and so we did. And in that time, we were very fortunate to acquire big accounts. But just to give you an idea since we are going to talk about direct trade, the accounts they use intermediate companies to buy from exporting companies since they are so big you know.

So that is how we started and we grew a lot and we grew fast, but it was probably around 10 years ago we started to see how the market shift very quickly, and we decided that we were not going to be depending on these big accounts, you know, we were at a risky place. So that's when we started to move in to a different direction, searching for direct trade and searching for that. So that's some of the background from our family.

E: So, you started with the direct trade let's say the last 10 years? You've developed experience of direct trade for 10 years now?

A: Yes around 10 years. Maybe I would say that we had some direct trade relationships, when we think about it now, we officially moved to that model 10 years ago.

EE: And how does it look like, how do you do direct trade? So, what's your kind of criteria's? Or do you have any criteria for the coffee buyers?

A: I guess that is something everyone will have different definitions for it, for sure. But for me personally, I started to getting involved with the family with my dad and my uncle when I was about 15 years old when I was in high school and when I was on vacations, just joining them when they were hosting clients and things like that, so that's when I started to see a difference you know, between somebody who was at the farm to just do a transaction, or even companies that not even visit but they would purchase, and I started seeing a couple of guys you know just that would travel every year and they would sit with my dad and my uncle for hours and laugh and talk and all those things, so that's kind of when I started getting exposed to direct trade, but for me now after 5 years of

experience… I would say that direct trade, I don't know if there is a criterion for it, but there needs to be a lot of communications, a lot of transparency (disruptions)

EE: Sorry can you repeat the last sentence?

A: Yeah, I was saying that with direct trade you need to focus a lot on communications, transparency, you need to normally have a relationship through email and phone calls you know, and see each other a couple of times per year. I'd say most importantly, direct trade needs to become a friendship, you know, because we, and we still do, we still receive clients who visit our farms every year. But I would not be confident to tell you that we are in a truly direct relationship spirit. So, you can have people visit and taking pictures with you and whatever, but that is not the whole idea, direct relationship, in my opinion.

EE: Yeah ok, so it is beyond that, it's more like a personal connection where you trust each other basically?

A: exactly, it is a trust that you build. So, I would say that with some clients we feel like the direct relationship is truly represented because they become brothers. And whenever we travel, we spend the night at their house with their family and whenever they visit us it's the same thing. There are no secrets, and that are things that you can perceive, right, so that is why it is important to have that face to face time.

EE: So, then it is like a relationship… and the criteria are different from different people, do they ask you specific things or?

A: I would say it is different for different people, because you have the type of clients that would fly to your farm and cup the coffees, take pictures, and then fly back and then say that is direct relationship. There are not a lot of criteria in that, or you can say that their criteria are to step on the farm and take pictures, enough. But I would say that there is need to be full transparency, and if they want internal information, they can ask for it and the producer will reply truthfully. So, things like that, you know those conversations, if we were dishonest producers, they would not like to have a direct relationship with us, and if you saw a dishonest buyer you need to enter these kinds of conversation so that you decide which side are you on. I don't know if that makes sense?

EE: Yeah, it does.

E: Now, could you please tell us from your perspective and your experience, what makes direct trade different from Fair trade? And if there is any kind of difference?

A: That is… is a question that might be a bit hard for me to answer because we have not participated with fair trade. But in my opinion, it ends up just being a certification, you know a piece of paper, and there are not really a lot of fundament in that… yeah... versus having a relationship with somebody and telling them for example, hey, we're looking at building a school or building a clinic and that's why our coffee is going to be thins price from now on you know. With certification that is not something that you can do really, that is the idea with direct trade and direct relationships is you call your friend and you say we want to work on these projects and our coffee from now on is going to be this price because the money is going to go here you know, and they are going to be able to fly to the farm, go personally to that school or that clinic, or to an employee's house and see the fruits of it. The traceability of the whole thing.

E: So basically, the direct trade is something more essential compared to the fair trade?

A: Yeah in my opinion, like I said, we have not participated with fair trade so that might be something interesting if you could ask somebody else that has what they think. But yeah, we believe in having open conversations and taking our clients directly to where we are saying that the money is going.

EE: I was thinking about when you were talking about the people who come and do direct trade with you guys, basically take some photos and go home and think that this is the direct trade, what are the reasons for them, why do they do that? Do you think that is more for marketing purposes?

A: I think most of the time it starts being for marketing purposes, that's how it starts, and it's also nothing wrong with that, and I would say that that's how smaller companies starts to do it, for marketing purposes, but then it takes a couple of years to build a direct relationship. You know, I think it is like for anything, it requires exercise you know, because before they would show up to a coffee importer, just get their credit card and go home you know. But they start doing these trips and I think it's alright that they don't know exactly how to do it, how to ask the different questions etc., so that's also something that the producer with the experience can help with. For example, someone who is starting to travel to origin visits us, we can help them by sitting down with them and telling them

like “hey these are our values this is what we believe in, this is what San Miguel and our company is all about”, so if we have that conversation it's going to be easier for them to understand what the deal is. Instead of just smiling at the camera and waving them off, because we are also interested in having a strong relationship, so it needs to be both ways and sometimes they don’t have that experience, it just requires a couple of conversations. But I would say that people start doing it for marketing purposes but then they understand what the true definition is.

EE: Ok, so since we are interested to see the whole supply chain of coffee trade and how it benefits the farmers, so my question is, do you feel like it is benefitting you more to have direct trade, and in what sense?

A: The thing with direct trade is that if you have brokers or middlemen and things like that, whenever your client wants to make a change, the broker does not care about you. They are taking care of their clients, and again that’s alright, I mean that’s nothing wrong with that, that is business, but for a producer to want to have a sustainable business you need to know who you are selling to, and you need to know how your client is growing and what he is innovating with and all these different things for you to be able to stay in the race, right, so having true direct relationship allows you to.. let's say you have a client... let me think of an example… yeah, I think that direct trade just makes you more partners than suppliers, so that makes you a part of their business.

EE: Like more like a win-win situation? They want you to also get the benefits?

A: Yes exactly (interruptions). Sorry, busy day at the office *laughter*.

EE: No worries, so what are you actually doing over there?

A: So, a lot of flyovers, so a lot of things are going on, and meetings …

EE: alright, that sounds fun

A: It is fun yeah, *laughter*. So, where were we?

EE: Sorry I lost my question...

E: We were in the point where you were saying that you were trying to give us an example of like when direct trade makes you more partners with your clients and that you are a part of their business.

A: Yeah, it's more of being partners than just suppliers, like you can change whenever you want. So, for example, as partners our roasters can call us and say, “hey Adrian, I don’t have enough money this year, I’m going to need a cheaper cup.” Instead of just removing me from their supply chain and go to buy for a cheaper, they can be transparent and tell me,” hey I’m having trouble”, you know. And we meet up with our team and say how can we help, and the same thing goes our way, we can call the client and say, “hey we want to develop this project, what do you think about joining?” things like that. So, if you are moving coffee without talking to the guy who is paying for it, that is very hard.

EE: Ok, and it is also probably benefitting you more that they want to be fairer... like if they know you they probably want to split equal profits…

E: Next one

EE: So, you mentioned that you don’t have any experience of blockchain regarding coffee…

A: Yes, we have been presented the concept but it's still a bit confusing, you know, so we are open to the idea, but we have still not fully understood.

EE: Ok…

E: But you know what it is about, blockchain? Do you have any opinions about Blockchain and some viewpoints from your perspective, do you know the concept and how it can be implemented...?

A: Well to summaries it what I understand Blockchain allows for better… my perspective of blockchain would be positive, but we still have not understood the whole value for us to add it. We are researching because it is something that sounds good, but we have not yet implemented it. We feel we need to learn more about it.

EE: Then it's great what we are doing *laughing*, this is our purpose of our thesis actually, you know, to be able to come up with information to farmers and stuff like that. Because we’ve been interviewing Fairchain Moyee Coffee and they are doing Blockchain with people in Ethiopia and basically these farmers are roasting their coffee beans in Ethiopia there and then selling their coffee from there… Would you be interested in, or are you roasting any of you beans in Guatemala as well?

A: We roast coffee in Guatemala and sell that locally.

EE: ok, but not to sell in other parts in the world?

A: No, no.

EE: And how come you are not doing that?

A: We have tried so but in our opinion, you will definitely lose quality in a significant way, and we don't want our brand tied to that quality so…

EE: Because it takes days for the coffee to arrive, is that why the quality decreases?

A: Yes, even if you do it by plane, your cost rises, and if you do it by regular ship, there are different things but for sure the quality is not going to be the best in our opinion.

E: Even if you don't have experience in the Blockchain, do you think that the implementation of this concept would be essential and would be beneficial for the (your) farmers?

(Bad connection, repeated the question)

A: Yeah... I think so, but the thing is I don't completely understand it yet like I said, so... we have been introduced to the idea in several conferences by these same people from the states, and they are actually good friends of mine, but he has given the presentation several times in Spanish and he doesn't speak Spanish well, so *laughter* so that has a lot to do with it. The times that we heard it, at least us as an operation, you could say medium to large operation, so we have our own software and our own computer systems and things like that developed. We have a team of four programmers in the IT department, so when we first were introduced to this, we don't see the value of paying for it if we can do it ourselves and have been doing, but I do have to say that I think there is value but the way they presented it, they couldn't show it so. I'm not trying to say that Blockchain doesn't work but the way we were presented to was not the best in my opinion.

E: But we could say that direct trade provides transparency, as you said before, but also Blockchain provides transparency. So, could we say that these are two concepts that are related. They have the same purpose.

(Bad connection once again, repeated the question)

A: Yes, for sure.

E: Cool. What else do we have here.

EE: Well, so if I understood it correct, when you have direct trade with some coffee shop, is it like they come to the farm and see how it looks like and everything like that, and then what are the steps after that? Do they order a certain quantity or get some samples or…?

A: yeah, it would depend on the client. And that is also something worth mentioning, let talk about a client that buys a full container and they're going to import themselves, and you negotiate volume and price, and then you send the coffee, you get paid, the importer gets it to the warehouse, but for example if you have a small client that is going to buy 15 bags – in a full container you can fit 275 bags, and you receive a client at your farm that you have a direct relationship with, that want 15 bags because he is small and is just starting, sometimes they would tell their importer to receive the coffee for them. The importer most of the time is going to pay us, so they provide a financing to the small roaster. So, in my opinion, even if we are not receiving the money directly from our client, there can be direct relationship.

EE: ah okay, that was interesting, because I didn't know that…

A: Because as I was saying the client is flying over, we have a strong relationship, and he is transparent and he is saying that he needs financing from somebody else, but he is negotiating directly with us, not the importer. We are telling our client how much our coffee cost, and whatever the importer wants to charge him that is their problem, not ours. And we have a direct conversation with our client. So that's the way I see it, you can have an importer helping out, and paying you, but you still can have a direct relationship.

EE: ok, that was a good knowledge to have… I think that was all we were thinking about for now. I don't know if we have any more questions right now at least. It was great talking to you, thank you so much, it's going to be helpful. And we will give you some information about Blockchain once we have some more knowledge *laughter*

A: Please do. And let me know if you have any more questions or want to call me, no problem.

EE: Thank you, bye

12.3 Appendix 3: List of peer-review articles analysed in the current review.

Index	Title	Authors	Year	Journal	Impact Factor	Theory	Methodology
1	Blockchain for supply chain: Improving transparency and efficiency simultaneously	Benton, M. C.; Radziwill, N. M.; Purritano, A. W.; Gerhart, C. J.	2018	Software Quality Professional	(2 yrs.) 1.596	COCNEPT OF BLOCKCHAIN, GLOBAL SUPPLY CHAIN MANAGEMENT	Systematic literature review and case studies
2	Rational heuristics: the 'simple rules' that strategists learn from process experience	Bingham, C. B.; Eisenhardt, K. M.	2011	Strategic Management Journal	5.482	RESEARCH STUDY	Qualitative research based on tracking six technology-based ventures from three diverse countries
3	How blockchain improves the supply chain: case study alimentary supply chain	Casado-Vara, R., Prieto, J., De la Prieta, F., & Corchado, J.M	2018	Procedia Computer Science	(2 yrs.) 0.90	CONCEPT OF BLOCKCHAIN WITHIN SUPPLY CHAIN	Case study
4	The art of the possible: Relationship management in power regimes and supply chains	Cox, A.	2004	Supply Chain Management	(2 yrs.) 6.105	RELATIONSHIP BETWEEN SUPPLIER AND BUYER	Systematic literature review
5	Learning the Craft of Organizational Research	Daft, R. L.	1983	The Academy of Management Review	(2 yrs.) 8.855	RESEARCH CRAFT	Integrative research approach
6	A Model for Fair Trade Buying Behaviour: The Role of Perceived Quantity and Quality of	De Pelsmacker, P.; Janssens, W.	2007	Journal of Business Ethics	(2 yrs.) 2.917	FAIR TRADE, COCNEPT OF BLOCKCHAIN	Qualitative research based on case studies, sample of 615 Belgians and extensive literature review

	Information and of Product-specific Attitudes.						
7	Methodological fit in management field research.	Edmondson, A. C.; McManus, S. E	2007	The Academy of management review	(2 yrs.) 8.855	RESEARCH STUDY	Integrative research approach
8	Theory Building from Cases: Opportunities and Challenges	Eisenhardt, K. M.; Graebner, M. E	2007	Academy of Management Journal	(3 yrs.) 7.417	RESEARCH METHOD, RESEARCH STUDY	Integrative research approach
9	Extending sustainability to suppliers: A systematic literature review	Gimenez, C., & Tachizawa, E. M.	2012	Supply Chain Management	(2 yrs.) 6.105	SUSTAINABILITY, TRIPLE BOTTOM LINE	Systematic literaturE review
10	Coordinating quality practices in Direct Trade coffee	Holland, E.; Kjeldsena, C.; Kerndrupb, S.	2016	Journal of Cultural Economy	(2 yrs.) 0.944	DIRECT TRADE	Qualitative research based on case
11	The Search for Understanding: The Role of Paradigmatic Worldviews	Kelly, M., Dowling M. & Miller M.	2018	Nurse Researcher	1.725	RESEARCH PHILOSOPHY, ROLE OF PARADIGM	Integrative research approach
12	Ethical sourcing: An analysis of the literature and implications for future research	Kim, S.; Colicchia, C.; Menachof, D.	2018	Journal of Business Ethics	(2 yrs.) 2.917	OPERATIONS AND SUPPLY CHAIN MANAGEMENT	Systematic literature review and a citation network analysis
13	Blockchain's roles in meeting key supply chain management objectives.	Kshetri, N.	2018	International Journal of Information Management	(2 yrs.) 4.516	BLOCKAIN CONCEPT WITHIN FOOD INDUSTRY SECTOR	Qualitative research based on case study
14	Strategies for theorizing from process data.	Langley, A.	1999	Academy of Management review	(2 yrs.) 8.855	RESEARCH STUDY	Inductive approach

15	The case for inductive theory building	Locke, E.A.	2007	Journal of Management	(2 yrs.) 8.08	INDUCTIVE THEORY	Inductive approach
16	Problems with Firm-Led Voluntary Sustainability Schemes: The Case of Direct Trade Coffee.	MacGregor, F.; Ramasar, V.; Nicholas, K. A.	2017	Sustainability	(2 yrs.) 2.075	SUSTAINABILITY, CONCEPT OF DIRECT TRADE	Qualitative research based on the selection of six direct trade firms in the US and Scandinavia and interviews with four of them
17	Beyond Bitcoin: using blockchain technology to provide assurance in the commercial world	Mansfield-Devine, S.	2017	Computer Fraud & Security	No record	CONCEPT OF BLOCKCHAIN	Interview
18	Innovative Blockchain-Based Approach for Sustainable and Credible Environment in Food Trade: A Case Study in Shandong Province, China	Mao, D.; Hao, Z.; Wang, F.; Li, H.	2018	Sustainability	(2 yrs.) 2.075	CONCEPT OF BLOCKCHAIN	Experiment and case study
19	An emerging strategy of "direct" research.	Mintzberg, H.	1979	Administrative Science Quarterly	7.313	RESEARCH METHOD, QUALITATIVE RESEARCH	Integrative research approach
20	Certification of markets, markets of certificates: Tracing sustainability in global agro-food value chains	Mol, A.P.J.; Oosterveer, P.	2015	Sustainability	(2 yrs.) 2.075	DIRECT TRADE, TRACEABILITY	Systematic literature review and reports on the topic
21	The use and abuse of power in supply chains	Munson, C. L.;	1999	Business Horizons	(2 yrs.) 2.588	COERCIVE POWER	Integrative research approach

		Rosenblatt, M. J.; Rosenblatt, Z.					
22	IT - dependent strategic initiatives and sustained competitive advantage: A review and synthesis of the literature	Piccoli, G.; Ives, B.	2005	MIS Quarterly	(2 yrs.) 5.430	BLOCKCHAIN, COMPETITIVE ADVANTAGE	Systematic literature review
23	For The Lack of a Boilerplate: Tips on Writing Up (And Reviewing) Qualitative Research. From the Editors.	Pratt, G. M.	2009	Academy of Management Journal	(3 yrs.) 7.417	RESEARCH METHOD	Integrative research approach
24	The evolution from corporate social responsibility to supply chain responsibility: The case of Waitrose	Spence, L.; Bourlakis, M.	2009	Supply Chain Management	(2 yrs.) 6.105	CORPORATE SOCIAL RESPONSIBILITY (CSR), SUPPLY CHAIN RESPONSIBILITY (SCR)	Qualitative research based on interview with Waitrose managers and its suppliers and an observation of ethical audit with a Waitrose supplier
25	Blockchain-based Technology in the Coffee Supply Chain Trade: Case of Burundi Coffee	Thiruchelvam, V., Shaka Mughisha, A., Shahpasand, M. & Bamiah, M.	2018	Journal of Telecommuni-nication, Electronic and Computer Engineering	(3 yrs.) 0.018	COFFEE SUPPLY CHAIN AND BLOCKCHAIN TECHNOLOGY	Quantitative approach with questionnaire
26	Writing Integrative Literature Reviews: Guidelines and Examples	Torraco, R. J.	2005	Human Resource Development Review	(2 yrs.) 2.05	LITERATURE REVIEW	Systematic literature review with reports on the topic
27	Reclaiming qualitative methods for organizational	Van Maanen, J.	1979	Administrative Science Quarterly	7.313	RESEARCH ORGANIZATION	Qualitative research

	research: A preface						
28	From chain liability to chain responsibility: MNE approaches to implement safety and health codes in international supply chains	Van Tulder, R., Van Wijk, J., & Kolk, A.	2009	Journal of Business Ethics	(2 yrs.) 2.917	SOCIAL RESPONSIBILITY, CHAIN LIABILITY, CHAIN RESPONSIBILITY	Qualitative research based on the comparison of two samples; 30 firms within International Framework Agreement and a benchmark group of 38 firms leading Multinational Enterprises
29	Examples from blockchain implementations in logistics and supply chain management: Exploring the mindful use of a new technology.	Verhoeven, P.; Sinn, F.; Herden, T. T.	2018	Logistics	(8 yrs.) 2.352	BLOCKCHAIN IMPLEMENTATION, SUPPLY CHAIN MANAGEMENT	Qualitative research based on case studies
30	Blockchain Applications to International Affairs: Reasons for Skepticism.	Walch, A.	2018	Georgetown Journal of International Affairs	No record	CONCEPT OF BLOCKCHAIN	Interview
31	Understanding blockchain technology for future supply chains: A systematic literature review and research agenda.	Wang, Y.; Jeong, H. H.; Beynon-Davies, P.	2019	Supply Chain Management	(2 yrs.) 6.105	CONCEPT OF BLOCKCHAIN IN RELATION TO SUPPLY CHAIN	Systematic review of academic and practitioner literature

32	Investigating volatility in coffee prices along the Ethiopian Coffee value chain.	Worako, T. K.; Jordaan, H.; Schalkwyk, H.D. Van.	2011	Agrekon	(3 yrs.) 0.224	COFFEE PRODUCTION IN RELATION TO THE FARMERS' LIVELYHOOD	Qualitative research based on case study
33	Coffee Shops and Cash Crops: Gritty Origins of the World's Favorite Beverage.	Wright, J.; Zeltmann, S.; Griffin, K.	2017	Competition Forum	No record	CONCEPT OF DIRECT TRADE, FAIR TRADE AND ETHICAL SOURCING	Inductive approach