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## **Bachelor Thesis**

**The future of International Coffee Trade in light of the**

**COVID-19**

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## **Declaration**

I declare that I have worked on my bachelor thesis titled " The future of International Coffee Trade in light of the COVID-19" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break any copyrights.

In Prague on 13.03.2022

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## **Acknowledgement**

I would like to thank Olga Regnerová for the advice and support during my work on this bachelor thesis.

# **The future of International Coffee Trade in light of the COVID-19**

## **Abstract**

This bachelor thesis examines influence of COVID-19 on the international coffee trade and future predictions for the development of this industry. Coffee is one of the largest traded commodities and second most traded beverage after water. The coffee industry provided income and jobs for millions of people around the world. The disruptions and issues in international coffee trade can have a detrimental impact on the global economy as a whole. It is of significant importance to research this topic and make appropriate projections for the future development of coffee. In this work, primary research on the abovementioned topics was conducted via interviews and a survey. It has been found that there are transportation issues present in the coffee exporting countries. However, overall, coffee industry has been recovering quickly after the negative effects of COVID-19 with coffee market prices reaching all time high prices as well as consumption, export and import of coffee returning to the indicators prior to coronavirus. Therefore, it can be assumed that the coffee industry and international coffee trade will be developing in a positive direction and expanding even more over the coming years.

**Keywords:** Coffee, International coffee trade, coffee cultivation, import, export, coffee consumption, coffee bags, International Coffee Organization.

# **Budoucnost mezinárodního obchodu s kávou ve světle COVID-19**

## **Abstrakt**

Tato bakalářská práce zkoumá vliv COVID-19 na mezinárodní obchod s kávou a budoucí predikce vývoje tohoto odvětví. Káva je jednou z nejobchodovanějších komodit a po vodě je druhým nejobchodovanějším nápojem. Kávový průmysl poskytoval příjem a práci pro miliony lidí po celém světě. Narušení a problémy v mezinárodním obchodu s kávou mohou mít škodlivý dopad na globální ekonomiku jako celek. Je velmi důležité prozkoumat toto téma a vytvořit vhodné projekce pro budoucí vývoj kávy. V této práci byl primární výzkum na výše uvedená témata proveden prostřednictvím rozhovorů a průzkumu. Bylo zjištěno, že v zemích vyvážejících kávu existují problémy s dopravou. Celkově se však kávový průmysl po negativních dopadech COVID-19 rychle zotavuje, přičemž tržní ceny kávy dosahují všech dob vysokých cen a také spotřeba, export a import kávy se vrací k ukazatelům před koronavirem. Dá se tedy předpokládat, že kávový průmysl a mezinárodní obchod s kávou se budou v následujících letech vyvíjet pozitivním směrem a ještě více expandovat.

**Klíčová slova:** Káva, mezinárodní obchod s kávou, pěstování kávy, import, export, spotřeba kávy, kávové sáčky, International Coffee Organization.

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# 1 Introduction

In the modern day, coffee seems to be one of the integral parts of people's daily routine. Many people start their day with a cup of coffee either by making it at home or running to a coffee shop before work to get one. According to Rhiney, Guido, Knudson, Avelino, Bacon, Leclerc, Aime and Bebbber (2021), coffee is known to be the most widely traded agricultural commodity around the globe. The coffee industry provides jobs to around 100 million people in the world (Rhiney et al., 2021).

Prior to the outburst of COVID-19, the forecast for the coffee industry was an exponential increase. According to USDA Foreign Agricultural Service (2019), Brazil was one of the largest producers of coffee and the forecast for 2020 for Brazil's coffee production was around 59.3 million bags of coffee with the weight of 60 kilograms for each bag. However, due to the sudden spread of COVID-19, the coffee industry has been facing a considerable challenge in a form of high operating costs that coffee producer farms could not keep up with, lower overall demand on coffee as well as importation struggles due to travel restrictions (International Coffee Organization, 2020). A study done in 2020 by International Coffee Organization has investigated the correlation between COVID-19 and coffee industry's development. It has been found that one point decrease in GDP growth positively correlates with decrease of global demand for coffee by 0.95%, which is equivalent to 1.6 million bags of coffee (International Coffee Organization, 2020).

However, some reports by international companies specialized in coffee sales, such as Nestle and Starbucks, have shown that there have been robust coffee sales indicators in 2020 as people stockpiled essential items and have become one of the essentials for a big majority (Nestle, 2021). According to Nestle's annual report for 2020, throughout the year there has been a strong demand sustained for Nescafe and Starbucks products.

Therefore, it is important to investigate how the coffee industry has been impacted by COVID-19 and determine the future trends for the coffee trade. This thesis will examine the history of coffee, background of international coffee trade and its role in the global economy, influence of coronavirus on the international coffee trade as well as future predictions for the development of this industry. Moreover, this paper will also focus on conducting a primary research through a survey and interviews. Ultimately,

based on the results of the literature review and the primary research, the final assumptions regarding the future trends of the coffee industry growth will be given. There are several expectations regarding the topic. The first assumption is that COVID-19 may have shortly adversely impacted the international coffee trade, however, the coffee industry did not suffer huge losses as some other consumption industries. Another assumption is that international coffee trade is only expected to expand as COVID-19 did not dramatically impact this market and it came back to its pre-pandemic development vector.



## **2 Literature Review**

### **2.1 The history of coffee**

Coffee is regarded as one of the most widely traded commodities after oil and the most popular global beverage superseding tea (Kucukkomurler & Ozgen 2009). The leaders in the production of coffee are mostly developing countries, such as Brazil, Vietnam, Colombia and Ethiopia, while the largest consumer countries are developed nations, namely USA, Finland, Netherlands and many other (Mordor Intelligence, 2020).

To begin with, coffee is a drink that is brewed from roasted coffee beans, which are extracted from the flowering plants in the *Coffea* genus (Cappelletti, Daria, Sani & Aromatario, 2015). The first country to fertilize the coffee plants was Yemen, meanwhile the first country to roast the coffee beans was Turkey (Cappelletti, Daria, Sani & Aromatario, 2015). Throughout the academic community, it has been established that using coffee as a drink has been spread from the Arabic nations onto the rest of the world (Cappelletti, Daria, Sani & Aromatario, 2015).

Furthermore, the Arabian Peninsula was the first to farm coffee and develop coffee trade. Starting from the 15<sup>th</sup> century, coffee has been cultivated and fostered in the Yemen and it spread onto Persia, Egypt, Syria and Turkey (National Coffee Organization, n.d.). According to Pendergrast (2001), various ways people originally consumed coffee includes simply chewing the leaves of coffee, brewing the leaves and berries in boiled water mixed with tea or grounding coffee and joining it with some kind of animal fat eating the end result as a snack. Moreover, another way coffee was consumed was by making it into a sweet beverage named “qishr” through the roasting of husks of coffee cherry (Pendergrast, 2001). Approximately around the 16<sup>th</sup> century, the coffee drink that is more familiar to the modern society was made through first roasting the beans, grounding them and then making an infusion. By the 17<sup>th</sup> century, the stories about the coffee beverage have been roaming around Europe and coffee became popular across the whole continent. For instance, in the middle of 17<sup>th</sup> century, London has been estimated to have more than 300 coffee houses in the city (National Coffee Organization, n.d.).

However, the development of the coffee industry slowed down due to the emergence of tea in England as the latter was easier and cheaper (Pendergrast, 2001). This is tied to the fact that Britain conquered India and gained access to the country’s tea

industry (Pendergrast, 2001). Nevertheless, cultivation of coffee spread into the Americas, such as Haiti, Brazil and others, around the 1720s and 1730s (Pendergrast, 2001). Over the years, by the second half of the 19<sup>th</sup> century the majority of the plantations of coffees were placed in Central American and South American countries (Ukers, 1922; Pendergrast, 2001). According to Ukers (1922), Brazil went from producing zero coffee exports at the 19<sup>th</sup> century to exporting around 70 percent of the global coffee between 1910 and 1920. Furthermore, other Latin countries, such as Colombia, Guatemala, and Venezuela, each exported around 50 percent of the rest of the 30 percent of the global coffee exports.

In the modern time, there are 4 primary types of coffee beans (District Roasters, 2019):

- Arabica
- Robusta
- Liberica
- Excelsa

To begin with, Arabica is the most common type of coffee beans being traded accounting for approximately 60-70 percent of the global coffee production (District Roasters, 2019). This type of coffee is grown in regions above the sea level with high amounts of rain. Furthermore, this variation of coffee beans is known to be sweeter and is heavily promoted in North American markets (District Roasters, 2019). Next, there are Robusta coffee beans, which are known to be harsh and strong in flavor (District Roasters, 2019). This type of coffee bean is the second in popularity in terms of production and international trade. Robusta is most beloved in countries of Europe, Middle East and Africa, as people in those regions prefer their coffee to be more bitter (District Roasters, 2019). Furthermore, Robusta beans also have higher concentrations of caffeine compared to Arabica and are one of the easiest coffee beans to grow (District Roasters, 2019).

The third type of coffee beans is the Liberica and is one of the rarest coffee beans due the fact that it has to be grown in a very specific climate (District Roaders, 2019). According to District Roaders (2019), these factors prevent farmers that cultivate Liberica beans from upscaling their business on an international level. In terms of the taste, it is said to have a “woody” and “fruity” flavor (District Roaders, 2019). Finally, Excelsa is a variation under the Liberica coffee family, but is significantly distinct in its origin and taste (District Roaders, 2019). Excelsa is mostly grown in South East Asian regions and represents a small

proportion of the global coffee production. It is known to have a unique flavor with undertones of both light and dark roast coffees (District Roaders, 2019).

## **2.2 Background of International Coffee Trade**

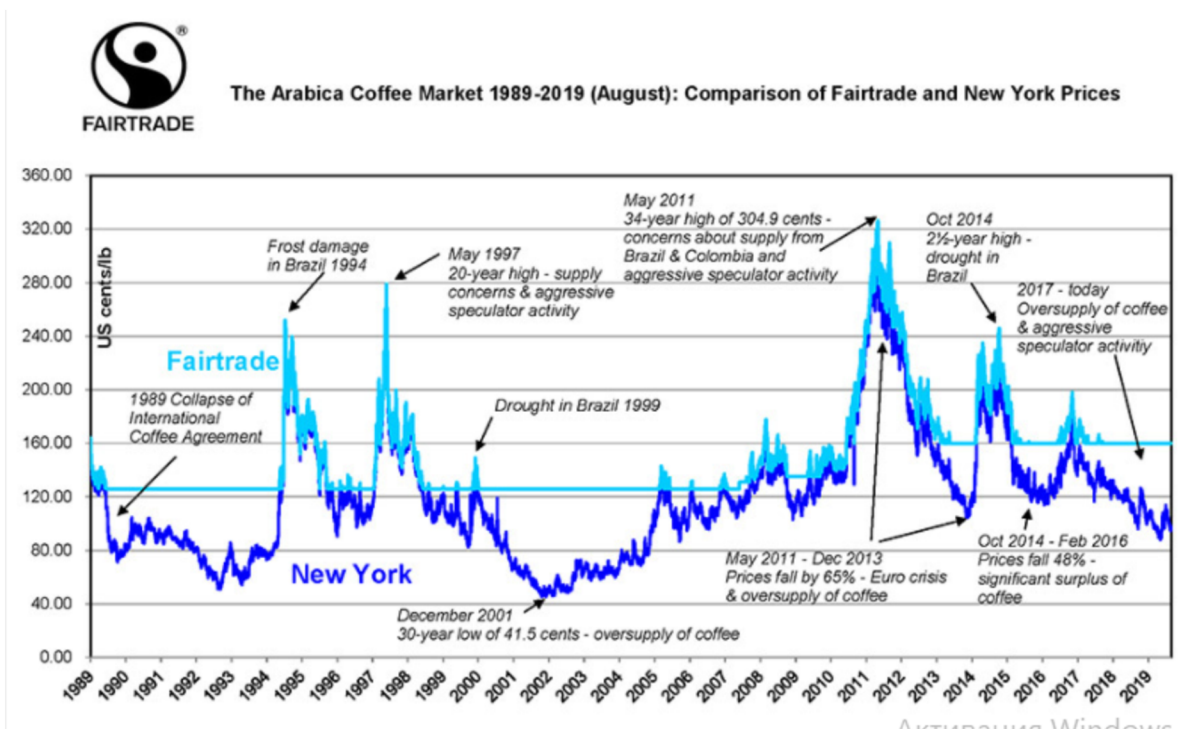
Coffee was exchanged between countries since the ancient times, however, nowadays the International Coffee Agreement (ICA) is the only global policy mechanism that regulates worldwide coffee production and distribution (International Coffee Organization, 2021). The International Coffee Agreement was originally signed 1962, while the last successive version was negotiated in 2007 (International Coffee Organization, 2021). The purpose of the agreement since its creation was to “strengthen the global coffee sector and promote its sustainable expansion in a market-based environment for the betterment of all participants in the sector” (as cited in (International Coffee Organization, 2021). To be exact, ICA’s objective is to sustain the coffee quotas of exporting countries and to preserve high and stable coffee prices on the market (Leonard, 2006).

The International Coffee Agreement has also appointed a representative body named the International Coffee Organization (ICO) in the same year in order to ensure that the ICA is upheld among the members of the agreement (International Trade Organization, 2021). Currently, there are 42 exporting and 7 importing participants of the organization under the 2007 International Coffee Agreement as of the February, 2022 (International Coffee Trade, 2022). According to the ICO, the countries that are part of the organization provide 97% of the global coffee production and account for 67% global coffee consumption (International Coffee Trade, 2022).

Furthermore, the framework of fair trade focused on ensuring coffee producers and farmers will get paid fair wages for their harvests was introduced in the late 1980s (Max Haveelar Foundation, 2013). Prior to the establishment of fair trade, the coffee prices were regulated by the International Coffee Organization under the regulations enforced by the International Coffee Agreement of 1962 (Gragusanu & Nunn, 2020). Fair Trade was created not only in regards to the coffee industry, but all food and agriculture related spheres to improve the development of farmers and producers of commodities in developing countries (Ruggeri & Corsi, 2021). Fair Trade offers producers fair trade certification for their commodities with which farmers in developing countries are ensured a minimum price and a premium price for their commodities (Gragusanu & Nunn, 2020). In terms of the coffee industry, the same pricing mechanisms apply for the coffee growers. According to Gragusanu and Nunn (2020), the minimum price is set to cover average costs of production and reduce risks faced by the local

farmers. On the other hand, premium price is the margin that producers get in order to invest into their equipment and improve their quality of life (Gragusanu & Nunn, 2020). The minimum price for the commodities are determined by Fair Trade Labelling Organization International (Gragusanu & Nunn, 2020). As of 2021, the Fair Trade minimum price is set at 1.4 U.S. dollar per one pound or around 0.454 kilogram (Cuevas, 2021). Furthermore, the buyers of Fair Trade coffee have to pay a premium of 0.2 U.S. dollar per pound or around 0.454 kilogram on top of the minimum price (Cuevas, 2021). It can be seen from Table 2.1 how the prices changed after the introduction of fair trade prices throughout the years up until 2019. Overall, it can be seen that prices set by the Fair Trade increased over the years even if the market prices of coffee were low at stated periods of time in order to ensure the financial security of coffee farmers and producers in developing countries.

Table 2.1 Arabica Coffee Market Prices: 1989-2019



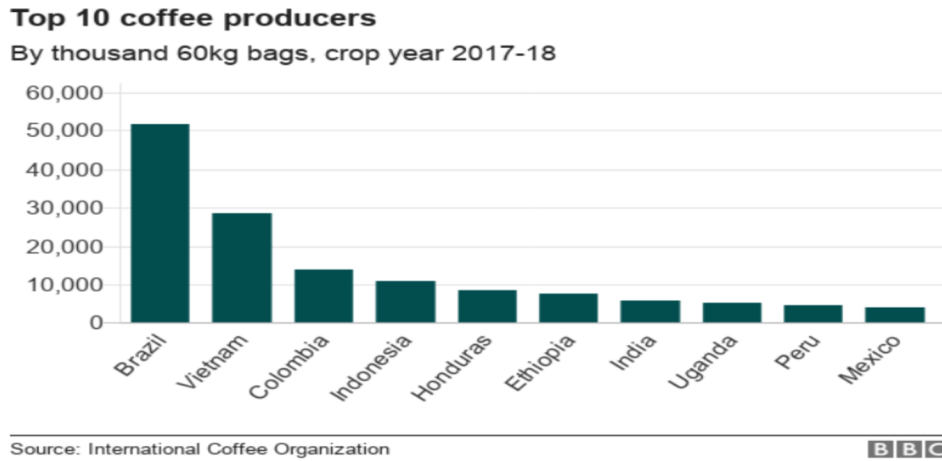
Source: Fair Trade International (2019). Retrieved from

<https://www.fairtrade.net/news/wake-up-six-reasons-to-choose-fairtrade-coffee>

The list of the largest coffee producers includes Brazil, Vietnam, Colombia, Indonesia, Honduras and many other. However, the biggest producer is known to be Brazil by exceeding its competitors by large points. According to the USDA and

International Coffee Organization, Brazil is in control of the 30% of the global coffee production (as cited in Caldarelli, Gilio & Zilberman, 2019). The Table 2.2 below will provide a breakdown among the leaders of coffee production in the years prior to COVID-19:

*Table 2.2 Top 10 coffee producers*



Source: BBC News. (2018). Retrieved from <https://www.bbc.com/news/business-43742686>

Furthermore, it is apparent that the largest manufacturers of coffee would also be the dominant exporters in the coffee market. Brazil and Vietnam seem to be the both the largest producers and exporters of coffee in the years prior to COVID-19. Table 2.3 below displays the biggest coffee exporters between 2017-2018 and 2016-2017:

*Table 2.3 Top coffee exporters between 2016-2017 and 2017-2018.*

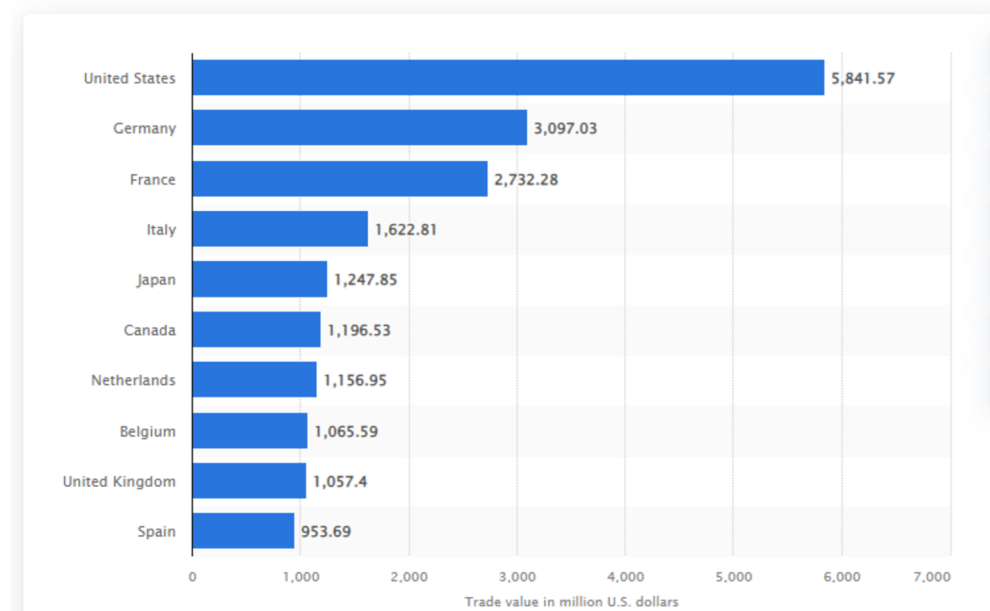
N	Exporting country	Billion dollars	Percentage growth against the total coffee exports
1.	Brazil	4,60	14,1%
2.	Vietnam	3,50	10,7%
3.	Germany	2,64	8,1%
4.	Colombia	2,58	7,9%
5.	Switzerland	2,20	6,9%
6.	Italy	1,60	5,0%
7.	Indonesia	1,19	3,6%
8.	Honduras	1,16	3,6%
9.	France	1,07	3,3%
10.	Belgium	0,94	2,9%
12.	Ethiopia	0,93	2,9%
13.	Usa	0,87	2,7%
14.	Holand	0,75	2,3%
15	Guatemala	0,74	2,3%

Source: Slavova & Georgieva. (2019). Retrieved from <http://tru.uni-sz.bg/tsj/Volume%202017,%202019,%20Supplement%201,%20Series%20Social%20Sciences/3/za%20pe4at/98.pdf>

Meanwhile, the leading importers of coffee comprised of the developed countries, such as the United States, Germany, France, Italy and many other in 2019. The biggest coffee importer is known to be the United States spending around 6 billion USD in 2019 and 6.3 billion USD in 2019 on coffee import. The main countries' that the U.S.A. imports from are the Latin American nations, such as Columbia, Brazil and others (Slavova & Georgieva, 2019).

Table 2.4 Top coffee exporters between 2016-2017 and 2017-2018.

### Leading coffee importing countries worldwide in 2019 (in million U.S. dollars)



Source: Statista. (2021).

## **2.3 The role of coffee industry in the global economy**

In the modern world of constant overworking, coffee is one of the top beverages consumed worldwide. According to the Giuli (2021), on a daily basis approximately 3 billion cups of coffee are consumed, which is a monetary equivalent of around 200 million USD. International Coffee Organization stated that prior to COVID-19 outbreak, the demand for coffee was at 164.8 million bags of coffee in 2019 (as cited in Giuli, 2021). This section will be focused to investigating the role of the coffee industry on the global scale in terms.

The coffee industry has experienced a considerable growth from coffee demand of 57.9 million bags in 1964 to around 165 million bags in 2019. It is notable that this would indicate a growth rate of 1.9% per year on average. However, the highest growth of the coffee industry can be seen in the last 20 years with the growth rate rising to 2.2% (Giuli, 2021). This can indicate how major the coffee industry is nowadays. The coffee sphere provides jobs for millions of people as well as businesses around the world. For instance, a recent research conducted on the second largest producer and exporter of coffee – Vietnam suggests that around 2% of the entire country's GDP can be accounted to the coffee industry since 2013 (Nguyen & Vo, 2021). Furthermore, the final results of the study suggested that the coffee industry is of significant importance for the Vietnam's economic development both in the short and long run. This relationship was traced through the effect of variables such as local and exportable consumption, overall coffee production and gross opening stock on the gross domestic product (GDP) of Vietnam (Nguyen & Vo, 2021).

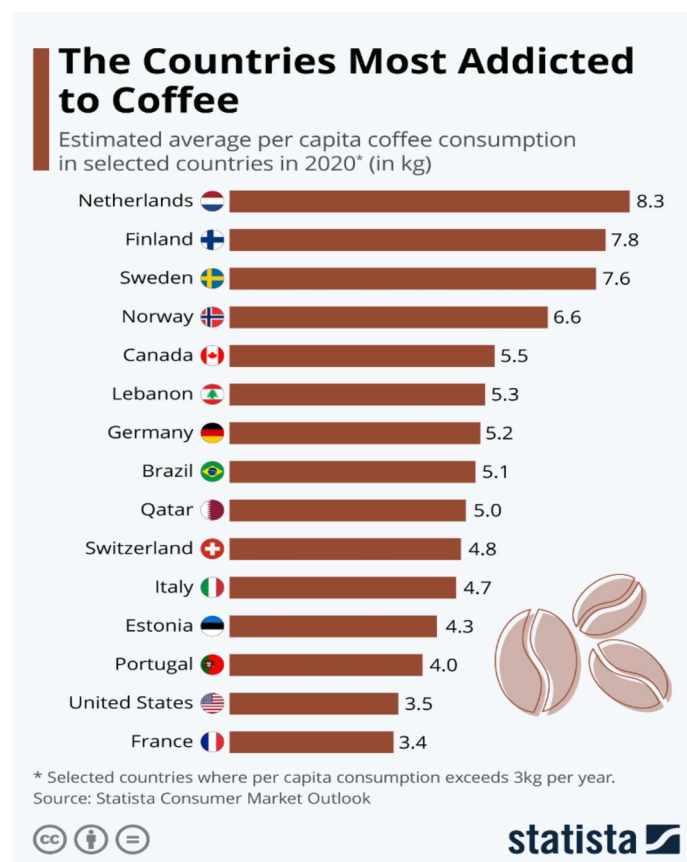
According to Krishnan (2017), approximately 125 million individuals depend on the coffee industry for their livelihoods in Latin American, African and Asian countries. Moreover, most of the people in those developing countries rely on coffee industry for the living with around 50 countries growing and exporting coffee (Krishnan, 2017). According to Livelihoods (2021), Latin American countries, such as Brazil, Columbia and Mexico, dominate the market of coffee production by having a market share of approximately 70% of global coffee production. A recent research suggests that most of the wealth in such countries comes from the coffee industry. For example, 50 percent of Ethiopia's GDP comes from the coffee industry, while in Guatemala and Brazil coffee industry attributes 25 percent and 10 percent to each of the countries' national GDP (Livelihoods, 2021).

Moreover, the coffee industry is not only paramount for the exporters and producers but the importer countries as well. In the between 2019 and 2020, the worldwide coffee



consumption amounted to approximately 169.34 million bags of 60 kg coffee. The Table 2.5 illustrates the highest ranking countries in terms of annual coffee consumption per capita in 2020. It can be seen that the Scandinavian countries, such as Finland, Sweden, Switzerland and Norway, European countries, such as Netherlands, Germany, Italy and France, as well as American countries, such as Canada, Brazil, Portugal and United States, are among the top 15 coffee consumers per capita globally. The highest consumer of coffee per person Netherlands with one person consuming on average 8.3 kilograms of coffee per year. Furthermore, three Scandinavian countries, namely Finland, Sweden and Norway, rank the next in the top 5 list with each person consuming 7.8 kg, 7.6 kg and 6.6 kg of coffee on average, respectively. In terms, of the Latin American and North American countries, it can be seen from the Table 2.5 that Canada ranks the 5<sup>th</sup> top consumer with an individual consuming around 5.5 kg of coffee yearly, Brazil ranks the 8<sup>th</sup> at 5.1 kg consumed per capita, while Portugal and Unites States rank as the last 13<sup>th</sup> and 14<sup>th</sup> consuming 4 kg and 3.5 kg of coffee per capita, respectively.

*Table 2.5 Top 15 coffee consumer per capita (in kg) in 202*



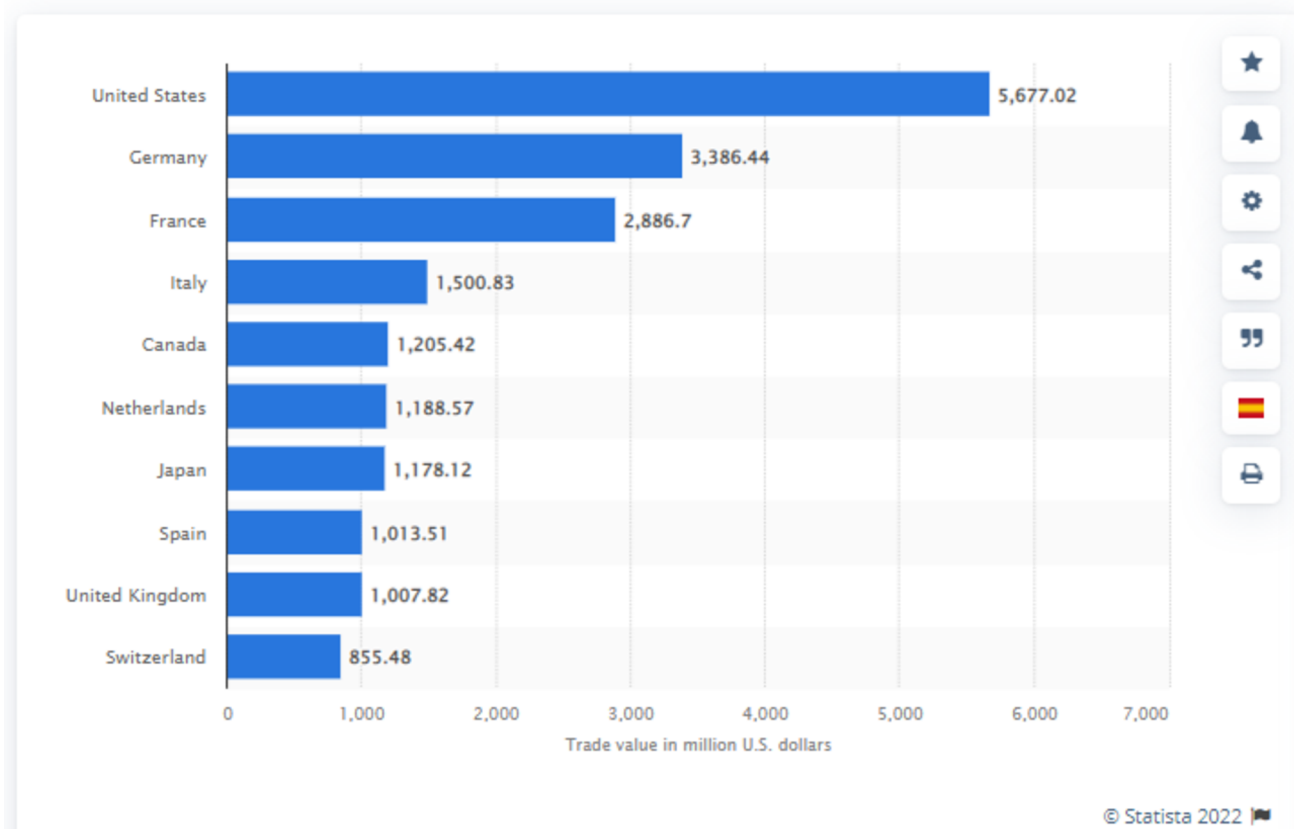
Resource: Armstrong, M. (2020). Retrieved from

<https://www.statista.com/chart/8602/top-coffee-drinking-nations/>

However, in regards to the largest coffee importing countries, the ranking is different. According to the Table 2.6 that illustrates the largest coffee exporting countries in 2020, it can be seen that the United States took the first place by importing approximately 5.86 billion U.S. dollars' worth of coffee. Next on, Germany and France ranked 2<sup>nd</sup> and 3<sup>rd</sup> with coffee imports amounting to around 3.39 billion U.S. dollars and 2.89 billion U.S. dollars. It can also be seen that while Netherlands ranks the first in terms of coffee consumption per capita, it takes only 6<sup>th</sup> place after Italy and Canada in overall coffee imports in the same year.

*Table 2.6 Leading coffee importing countries in 2020*

## Leading coffee importing countries worldwide in 2020 (in million U.S. dollars)



Source: Statista. (2022). Retrieved from

<https://www.statista.com/statistics/1096400/main-import-countries-for-coffee-worldwide/>

The significance of coffee industry in its largest importing countries can be seen through a number of economic indicators, such as GDP and overall contribution to the nations' economies. For instance, one of the high ranking importers and consumer countries of coffee is the United States. In accordance with the National Coffee Drinking Trends report

prepared by the National Coffee Association, the influence of coffee industry on the American economy in monetary terms was measured at 225.2 million USD in 2015. Moreover, in terms of the GDP, coffee industry comprises around 1.6% of the overall GDP of the country. As United States is a massive economy, 1.6% is a big proportion for an industry. This can be seen from the amount of people that rely on coffee sphere for a living as 1,694,710 jobs come from the coffee industry in the United States. According to Urban Bean Coffee (2022), around 64% of the Americans aged over 18 consume coffee on a daily basis. Furthermore, on average, American coffee consumer drink approximately 3.1 cups of coffee per day (Urban Bean Coffee, 2022).

In terms of the value of the coffee sphere, in 2020, it was reported that the global market value of the coffee industry amounted to approximately 466 billion U.S. dollars (Globe News Wire, 2021). Overall, the global import of coffee totaled to 133.03 million 60 kg bags of coffee and the total coffee export was around 142.4 million 60 kg bags of coffee in between 2020 and 2021 (Ridder, 2022).. Most of the revenue in the coffee industry is generated in the United States at around 90.3 billion U.S. dollars (Statista, 2022).

## 2.4 COVID-19 and International Coffee Trade

As the COVID-19 pandemic hit the world on a global scale, many commercial and agricultural businesses had suffered huge losses as their operations were put on hold until an undetermined time. Coffee being the most commercialized product was a big part of people's life not only for its refreshing properties, but also as a lifestyle attribute. Hence, as the coronavirus disease spread rapidly, majority of the population's lifestyles were disrupted as many were under strict quarantine. As the coffee shops closed down, the shelves of the grocery shops emptied, people were mostly focused on purchasing only the essential products. Moreover, as the travel was banned, the trade also may have suffered losses. This part of the thesis is going to be focused on getting in insight on the impact of COVID-19 on the International Coffee Trade.

In the coffee industry, the group that suffered the most in the coffee supply chain are the smallholder farmers who are responsible for the production of 80% of the coffee's global supply. In accordance with BBC (2020), almost 125 million people rely solely on coffee to provide for their families and themselves. Their job includes transference and roasting of coffee as well as the selling the final product (BBC, 2020). Cuevas (2021) has stated that the negative impact of COVID-19 on the coffee industry ranged from volatile changes in coffee prices, constant interruptions in shipping to high short-term and long-term uncertainty around the demand for the commodity. According to International Labour Organization (2020), around 87 percent of the coffee growing facilities in Columbia has faced labor shortages, decrease in operating capacity and workers' mobility.

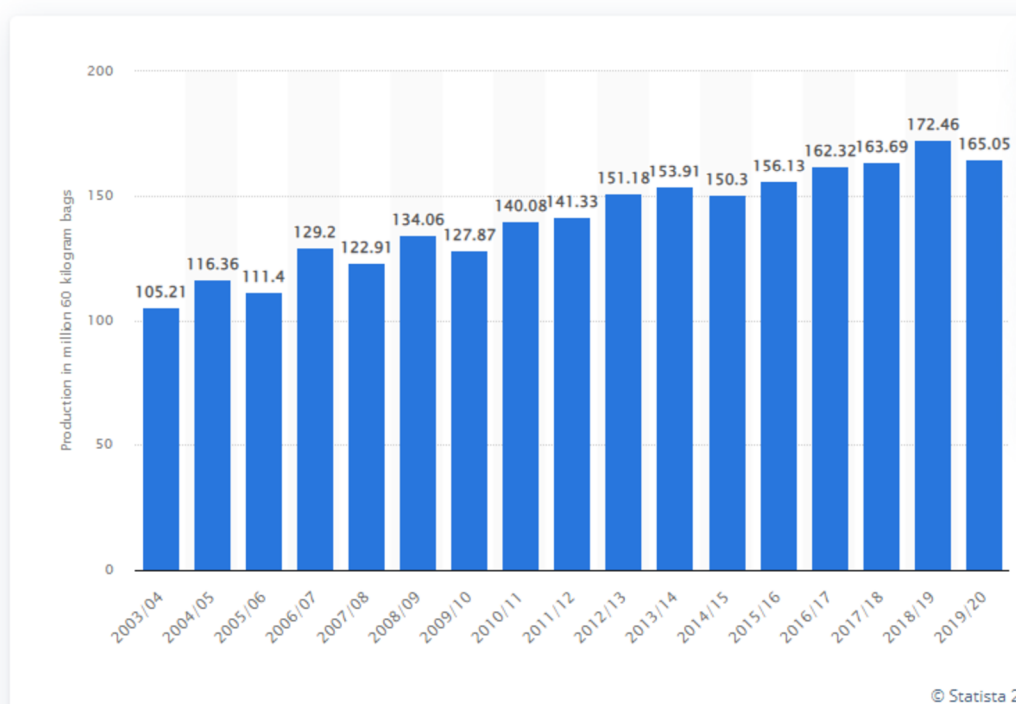
The executive director of the ICO, Jose Sette, has shared with BBC (2020), that COVID-19 did not have a large impact on the coffee industry as coffee production was not interrupted for a long period of time as many governments considered coffee manufacturing an essential economic activity. Consequently, both the major and minor coffee exporters were able to supply their regular volume, despite the COVID-19 pandemic (BBC, 2020).

Nevertheless, some studies show that there was, in fact, a drop in exports due to COVID-19. According to report on value chains in the coffee industry by Fromm (2022), in the first three months of 2020 there was a decline in total exports from 30.78 million bags in the season of 2018 and 2019 to 29.01 million bags, which is an equivalent to a decrease by approximately 6 percent. Furthermore, the total production decreased as well by approximately 1% (Fromm, 2022). In terms of the developing coffee growing countries, the exports from Latin American countries fell by almost 5% in the first seven months of coffee

year 2019/2020. The table 2.6 showcases the changes in global coffee production from 2003/2004 until the year when the COVID-19 hit the world. It is apparent that there was a drop in production of coffee by 7.41 million 60 kg coffee bags in the coffee year of 2019/2020 from 172.46 million to 165.05 million bags.

*Table 2.7 Coffee production worldwide from 2003/2004 to 2019/2020 (in million 60 kilogram bags)*

**Coffee production worldwide from 2003/04 to 2019/20 (i**



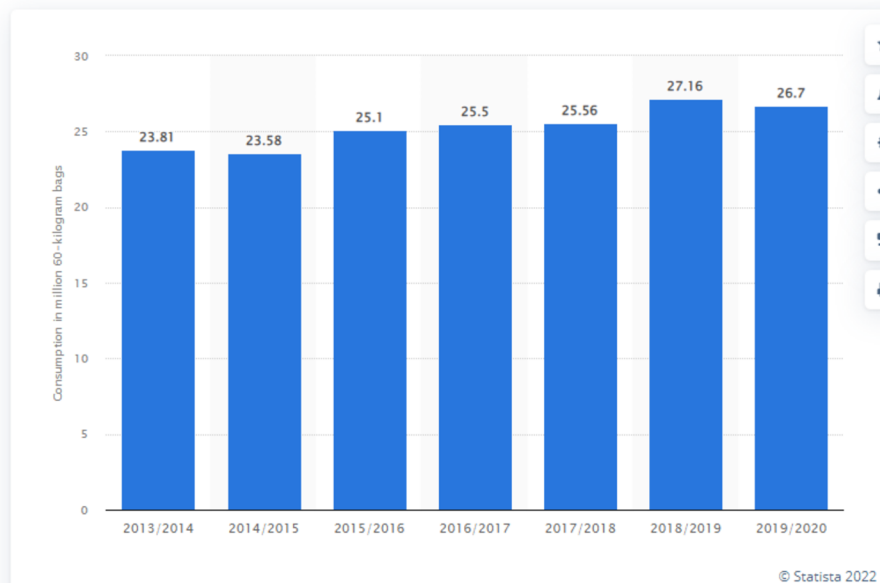
Source: Statista. (2022). Retrieved from

<https://www.statista.com/statistics/263311/worldwide-production-of-coffee/>

The Table 2.8 depicts the drop in the domestic consumption of coffee in the largest coffee importer – United States in the period of coffee year 2019/2020. It can be seen that throughout the years, coffee consumption was increasing reaching an all-time high of 27.16 million 60 kg coffee bags in the year prior to the spread of COVID-19 and dropping to 26.7 million 60 kg coffee bags in a year in the U.S.A.

*Table 2.8 Domestic consumption of coffee in the U.S.A. from 2013/2014 to 2019/2020*

## Domestic consumption of coffee in the United States from (in million 60-kilogram bags)



Source: Statista. (2022). Retrieved from <https://www.statista.com/statistics/804271/domestic-coffee-consumption-in-the-us/>

It is not surprising that the struggles for the coffee industry appeared on the side of demand. The executive director of ICO expressed his concerns by stating that “We do not know how the global economy will settle after this shock. When government support is no longer possible, we may see mass unemployment.” It is important to highlight that at the beginning of the pandemic the coffee sales increased exponentially as people began stockpiling food and beverages (Fromm, 2022). It was determined that in some countries people considered coffee as an essential item in their grocery list along with the milk, bread and eggs (BBC, 2020). The study done by Bracale and Vaccaro juxtaposed Italians’ weekly grocery shopping with the sales in 2019. It was discovered that coffee was the beverage that remained constant and Italian citizens could not give up compared to wine and beer (BBC, 2020). However, due to the enforcements of lockdowns in most of the major coffee consumers, such as European countries and North American countries, there was a sharp decline in the sales of out-of-home coffee as all the coffee shops and restaurants closed (Fromm, 2022).

Nevertheless, in terms of the coffee shops, it seems that in developed countries, coffee was one of the top beverages that tapped into e-commerce prior to the spread of COVID-19. In consequence, during the lockdown, businesses were able to stay afloat due to various subscription programs and delivery services established before (BBC, 2020). Moreover, the drop in demand due to the closed down cafes and restaurants was rather short-

terms as another trends in coffee consumption emerged (Fromm, 2022). The current emerging trend in the coffee industry is the increase of at-home coffee consumption due to expansion of online shopping and people working from home (Mordor Intelligence, 2022). For instance, the major coffee retailer, Nestle, reported a growth in organic group sales in the first three months of 2020 due to significant rise in demand for food and beverages worldwide (Mordor Intelligence, 2022). Moreover, National Coffee Association (2020) reports that the sales of ground coffee on Amazon.com have surged by 60 percent in around 8 months during lockdown. The coffee products that have been gaining popularity in Europe and North America are coffee pods, coffee capsules and instant coffee (Mordor Intelligence, 2022).

In the current time, the negative impact of COVID-19 on the coffee industry began to diminish and regain its normal levels of production, consumption, exports and imports (Barros & Rubio, 2021). In the period between 2021 and 2022, the prices of Arabica, Robusta and other coffee beans have increased as the supply from the exporting countries was expected to be lower than the worldwide demand for coffee. The Tables 2.9 and 2.10 illustrate the changes in market prices per 60 kg bag of coffee of the two primary coffee beans: Arabica and Robusta in the last 2 years.

*Table 2.9 Arabica coffee price index between April,2020 until March, 2022*



Source: Cepea

Source: CEPEA. (2022). Retrieved from

<https://www.cepea.esalq.usp.br/en/indicator/coffee.aspx>

Table 2.10 Robusta coffee price index between April,2020 until March, 2022



Source: CEPEA. (2022). Retrieved from

<https://www.cepea.esalq.usp.br/en/indicator/coffee.aspx>

In addition, it can be said that the worldwide production and consumption are returning to their performances prior to COVID-19. In the coffee year 2020/ 2021, the consumption of coffee is expected to reach 167.01 million bags of coffee increasing by almost 2 percent compared to the global consumption of 163.9 million bags in the coffee year 2019/2020 (International Coffee Organization, 2021). In terms of the export, the comparison between the total export of coffee in first halves of 2020 and 2021 showed that there has been an increase by around 1.7 percent from 10.5 million bags of coffee to 10.7 million bags of coffee.



## **2.5 The future predictions for the International Coffee Trade**

The coffee industry is one of the largest commodity spheres with coffee being the second traded drink after water around the globe. During the pandemic, people have been stocking up their coffee products when COVID-19 first hit the humankind, which indicates that coffee has come to be one of the essential products for many people in the world. As it has been established, COVID-19 has definitely impacted the coffee industry in a negative way, such as a drop in coffee consumption, overall trade, high price volatility and many other detrimental consequences. However, it seems that the coffee sphere has recovered quickly as the coffee consumption, production, export and import have been returning to their normal trends of growth. This section will focus on various factors that could facilitate growth of the coffee industry in the future.

According to Statista's Consumer Market Outlook (2022), by 2025 coffee industry is projected to attain approximately 585 billion U.S. dollars in global revenues in both out of home and at home coffee products. This increase is attributed to a surge in various specialty coffee goods and services developing in the food industry (Statista, 2022). To be exact, a research prepared by Mordor Intelligence (2022) states that coffee drinkers from developed countries are projected to switch from consumption of regular instant coffee to more luxury options in terms of quality and flavor as the perception of instant coffee will most likely change in a negative way.

Moreover, as one of the main drivers behind increase in at-home coffee products is the fact that people were forced to work from home and coffee shops and restaurants closed down. This stimulated the public's interest in at home coffee goods, such as coffee capsules and coffee pads, developing some sort of preferences and tastes in such products (Mordor Intelligence, 2022). As the world changed and working from distance has become a standard practice in many companies and workplaces, it seems that demand for at home coffee supplements is likely to grow even more with consumers searching for more variety in coffee products boosting this sector of coffee industry. For instance, Scientific Information on Coffee's study has revealed that 68 percent of the European countries' citizens consumed coffee frequently while working (as cited in Mordor Intelligence, 2022).

## **3 Practical part**

### **3.1 Introduction**

The aim of this thesis is to investigate the influence of COVID-19 on International Coffee Trade. The main research question is: “To what extent has COVID-19 impacted coffee industry? How did COVID-19 influence the International Coffee Trade?”. In this bachelor thesis, I plan on using two data-collecting methods, namely a survey and interviews. I have chosen these specific data collection methods in order to ensure to get both quantitative and qualitative data. The quantitative data will derive from the results of a survey, which I plan on including around 50 participants. Meanwhile, the qualitative data will be collected from in-depth interviews with experts in the international coffee trade or global economy in general. I believe interviewing around 2 people would be sufficient to get unbiased insight into the development of this sector of the economy.

## **3.2 Methodology**

### **Participants**

In this bachelor thesis, it was planned to include around 50 people for the survey data collection method. Furthermore, as coffee is consumed globally by a large proportion of the population, the coffee industry affects many people, regardless of their personal background. Hence, there were no specific criteria to be met by the participants of the survey. Nevertheless, there were certain requirements for the participants of the interviews as this type of data collection was used to gain more in-depth knowledge on the topic of International Coffee Trade and impact of COVID-19 on it. The interviewees were expected to have experience in the coffee sphere as they would be recruited in order to provide an opinion from a professional standpoint. The interview participants will be recruited via LinkedIn or Instagram through search by the key words such as “coffee”, “coffeetrade” and “coffeetradeexpert”. The survey participants were recruited through social media platforms, such as Instagram, WhatsApp and Twitter.

### **Data collection methods**

Overall, there were two data collection methods: a survey and two interviews. Moreover, interview participants will be expected to fill out the survey along with the other survey respondents. One of the requirements for this research was to collect a broad information that would reflect the view on coffee and coffee industry by the general public. Therefore, survey seemed as an effective data collection method for this purpose. Secondly, it was crucial to gain an insight knowledge regarding the coffee industry, international coffee trade and impact of COVID-19 on the industry. Interview was the most appropriate information gathering method for such a goal. The expected outcome from the data collection is obtaining information on how people’s coffee consumption changed during COVID-19, how much coffee do people consume on average, whether the public thinks coffee industry will expand or decrease, how people’s work impacts their coffee consumption habits, as well as short-terms and long-term effects of COVID-19 on the coffee industry. The survey will be conducted through “Google Forms”, which is a free digital platform and will take around 5 minutes to complete. In regards to the interview, it will be conducted online through either a Zoom call, WhatsApp audio or text messages. The interviewees will be given

the right to choose whichever option is more comfortable for them. In addition, interviewees will be provided the interview questions in the language of their preference in order to ensure the most efficient data collection. The expected duration of one interview is 15-20 minutes.

### **Survey questions**

1. Where are you from? (Your primary country of accommodation) (Open question)
2. Do you drink coffee?
  - a) Yes
  - b) No
3. How many cups of coffee do you drink per day?
  - a) 0-1 cup
  - b) 1-3 cups
  - c) 4-5 cups
  - d) 6+ cups
4. Did your coffee drinking habits change after COVID-19?
  - a) No, I drank the same amount of coffee before coronavirus
  - b) Yes, I started drinking more coffee
  - c) Yes, I started drinking less coffee
5. What type of coffee do you prefer?
  - a) Coffee at the coffee shops (ex. Starbucks, local coffee shop)
  - b) Home-instant coffee
  - c) Coffee from the coffee machine
6. What type of coffee do you drink more?
  - a) Coffee at the coffee shops (ex. Starbucks, local coffee shop)
  - b) Home-instant coffee
  - c) Coffee from the coffee machine
7. How do you think coffee impacted people's coffee drinking habits?
  - a) People started drinking more coffee
  - b) People started drinking less coffee
  - c) Nothing changed
8. Do you think coffee industry can expand or it is going downhill?
  - a) Expand
  - b) Decrease

c) None

**Interview questions**

1. What is the role of coffee industry in the global economy?
2. What was the direction of coffee industry's development prior to COVID-19? Did it change after the spread of COVID-19?
3. How did COVID-19 impact coffee industry and international coffee trade?
4. What are the short-term consequences of COVID-19 on the coffee industry and international coffee trade?
5. Are there any long-term consequences of COVID-19 on the coffee industry and international coffee trade?

## **4 Results and Discussion**

### **4.1 Introduction**

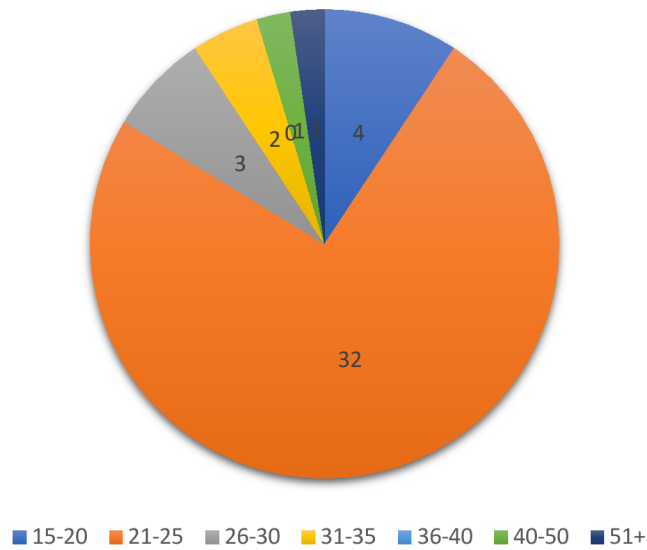
The focus of my bachelor thesis is the future of international coffee trade in light of COVID-19. This research topic is important as coffee is one of the largest commodities traded worldwide and the coffee industry proved jobs and income for millions of people both in developing and developed countries. Furthermore, coffee industry is often one of the main sources of wealth for many developing countries. As the pandemic of COVID-19 spread around the world, the market prices of coffee became highly volatile, coffee production and transportation were put on hold as well as decreases in coffee export and import occurred instantly. The primary objective of this research is to determine the direction of future development of the coffee industry in the reality post the spread of coronavirus. The main research questions are “How did COVID-19 impact coffee industry and international coffee trade?”, “What are the short-term consequences of COVID-19 on the coffee industry and international coffee trade?” and “Are there any long-term consequences of COVID-19 on the coffee industry and international coffee trade?”. There were two data collection methods implemented in order to answer to these questions: a survey and an interview. The purpose of this sections is to illustrate and analyze the information collected through these data gathering methods. Moreover, in the second half of this section, all the major findings will be analyzed and appropriate interpretations of the results will be made. Overall, there were two interviews conducted and one survey, which involved 43 respondents, even though the plan was to involve 50 participants in the interview. The further chapters will be divided by the data collection methods used and their results.

#### 4.1.1 Survey results

The survey data collection method was used to attain a large sample of information regarding the general public's perspective on coffee and average coffee consumption trends and behaviors. Overall, there were 14 questions out of which 2 were open-ended questions aimed at determining some personal background information, such as the geographical position and field of occupation. The survey was conducted via digital platform named "Google Forms". Ultimately, there were 43 samples out of the expected 50. Only 35 participants completed all of the items, while 8 respondents skipped one question related to their occupation completing all the other questions in the survey.

The first question was general question aimed at collecting some background information on the respondents was "Where are you from?". Major proportion of the interview participants was from Kazakhstan at approximately 65% of 43, or 28 people. To further breakdown, out of the 28 people 8 people were from Almaty, 1 from Karaganda, 1 from Nur-Sultan and 18 not specifying the exact city that they are from. In addition, around 19 % of the survey participants were from European countries, 4 from Spain, 3 from Netherlands and 1 from the United Kingdom. There were also 4 participants from American countries with 2 being from the United States, 1 from Canada and 1 from Brazil. Finally, there were 2 respondents from Hong Kong and 1 from Madagascar.

The following question was "What is your age bracket?" and the Figure 1 illustrates that the largest age group among the participants of the interview are the people aged between 21 to 25 years old at around 74% (32 people). The next biggest ages brackets were 15 to 20 year olds at approximately 9% (4 people) and 26 to 30 year olds at 7% (3 people). There were two respondents aged between 31 and 35, 1 person between 40 and 50 and 1 person being over 51 years old.



*Figure-1. What is your age bracket? Source: Own processing*

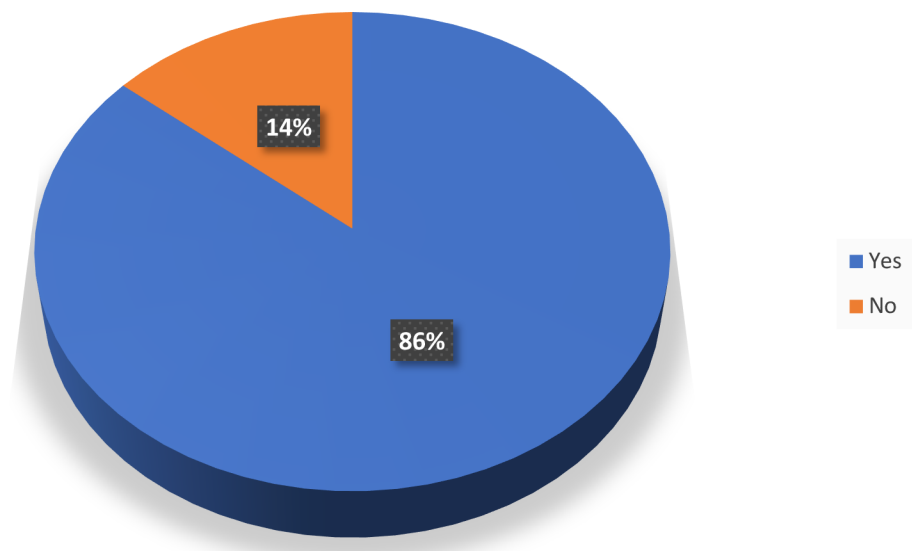
The next questions were “What is your gender?” and “Do you work?”. The results showed majority of the respondents were female at 27 out of 43 respondents, which is approximately 63%. Meanwhile, 35% or 15 people were male and 2% or 1 person preferred not to mention his or her gender. Moreover, most of the survey participants said they were working and the rest were not employed. To be exact, 67% of the 43 (29) people were employed and 33% (14 people) were not.

The further question was “What is your job?” and it also related to personal background information. It was an open-ended question and people good write their exact occupation. Overall, the professions of the respondents could be divided into 5 groups: Finance sphere, Business sphere, Marketing sphere, Education sphere and Server industry. Overall, 35 people responded to this question, but 2 people mentioned that they were still studying, 3 people said none meaning they don’t have a job and 1 person entered “representation” which could not be attributed to any of the abovementioned fields of profession. The sphere with the highest number of workers among the survey respondents was finance with 14 people having professions related to this type of field, such as audit, accounting, consultancy, analytics and finance assistance. The second highest ranking group were people working in business related occupations with 3 people owning a business and 2 being project managers. Furthermore, there were 4 people that had an occupation in the



education sphere, such as being a teacher or a tutor. There were also 3 people working in the field of marketing and 3 people working as servers.

Afterwards, participants had to answer to these questions: “Do you drink coffee?” and “How many cups of coffee do you drink per day?”. According to Figure 2, it can be seen that the vast majority of the respondents consumes coffee at 86% (37 people) of 43 respondents drinking coffee and only 14% (6 people) not consuming any coffee. It is important to add that, out of the 6 people that don’t drink coffee 4 did not work. Moreover, out of the 37 people that do drink coffee approximately 73% people that are employed are more likely to consume coffee compared to people that are not employed.



*Figure-2. Do you drink coffee? Source: Own processing*

According to Figure 3, that half of the survey respondents consume 0-1 cups of coffee per day at around 54% (23 people) and almost 47% (20 people) consume more than 2 cups of coffee per day. To be exact, almost 40% of the participants they drink between 1-3 cups of coffee per day and 7% said they drink from 4 to 5 cups of coffee daily. Out of the people that consume from 0 to 1 cups of coffee, 6 people do not drink coffee, hence, 17 people that do drink coffee consume 1 cup of coffee per day. It is also notable that among the coffee drinkers that consume between 1-3 cups of coffee (17 people) on a daily basis consisted of

7 people working in the finance field, which is around 41%, but this could be tied to the fact that overall there are more people that work in finance in the sample of the participants.

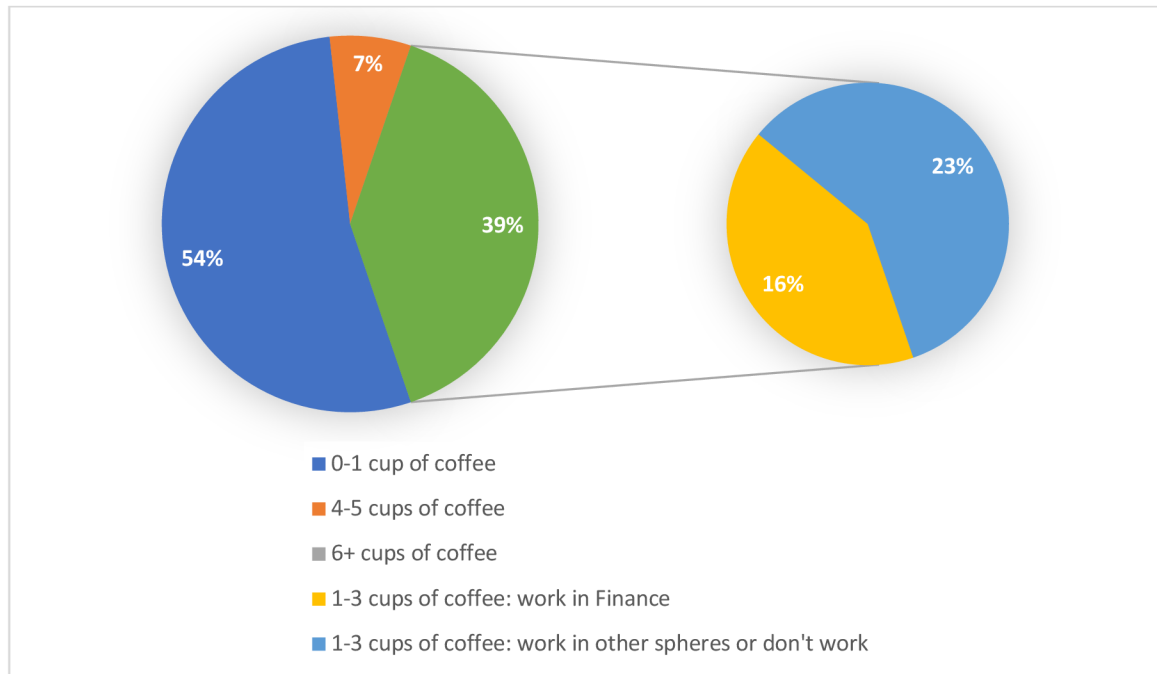
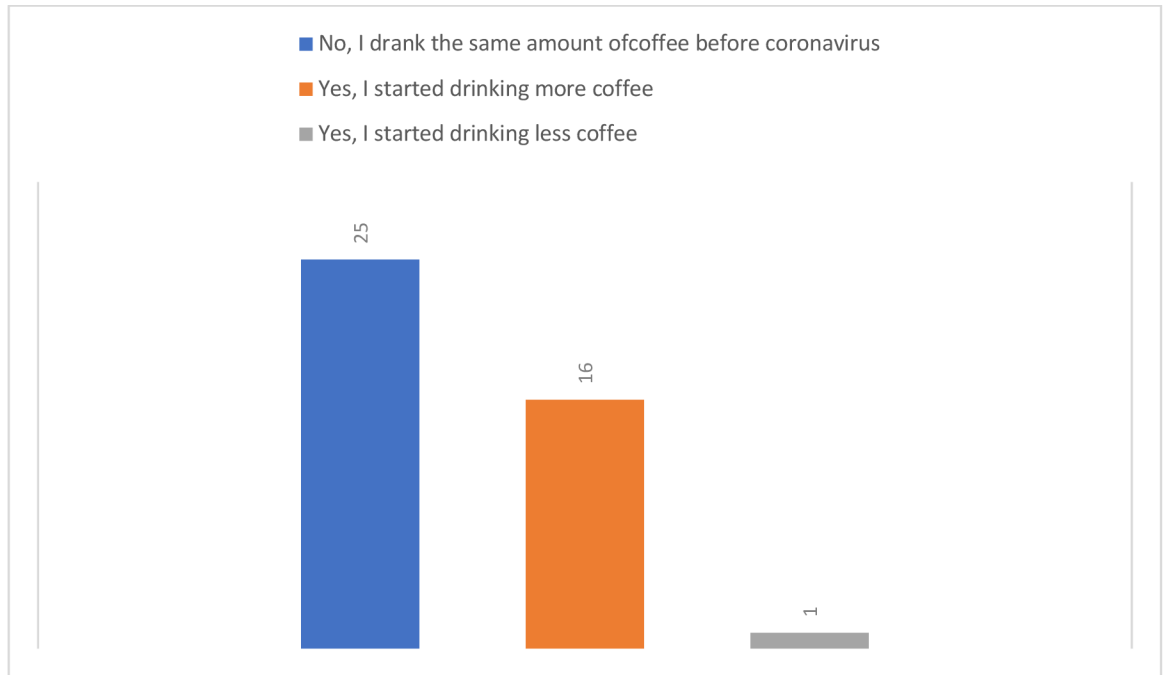


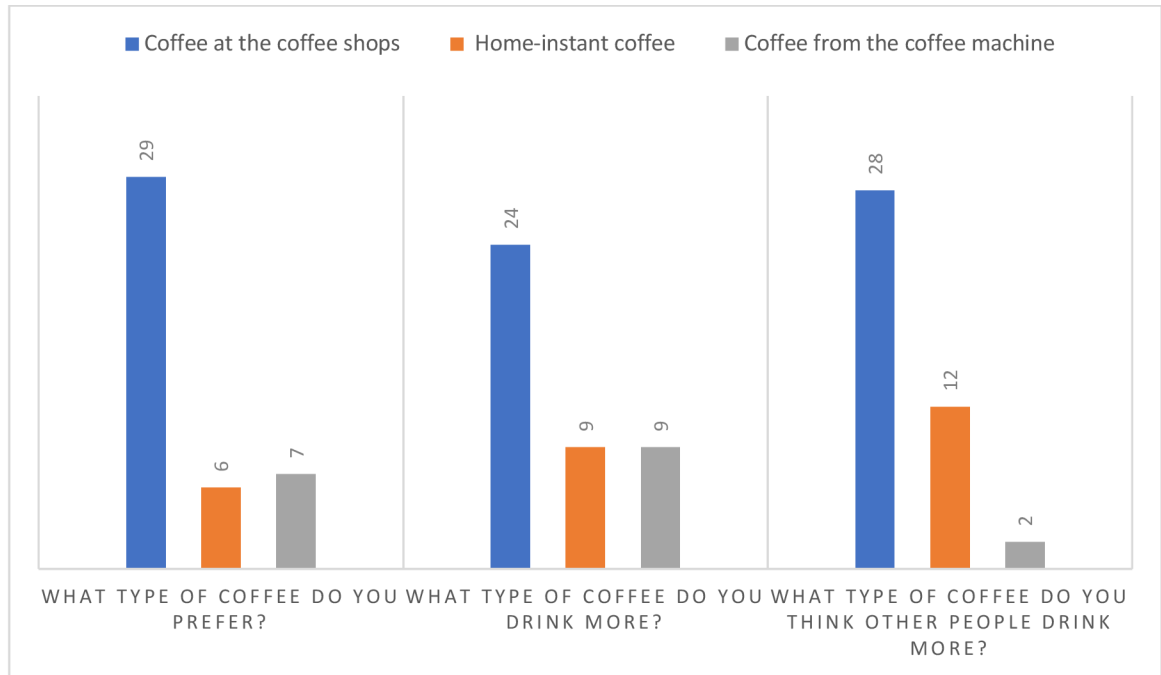
Figure-3. How many cups of coffee do you drink per day? Source: Own processing

The next questions were “Do you drink because of your job?” and “Did your coffee drinking habits change after COVID-19?”. The results showed that approximately half of the respondents did not, in fact, drink coffee because of their job at 51% and 30% of the respondents did drink coffee due their jobs, while almost 19% said they drink coffee because of their job sometimes. Figure 4 showcases that 60% of the respondents did not experience change in their coffee drinking habits, while around 38% said they did experience change in their coffee consumption after COVID-19 as they started drinking more coffee. Moreover, only 2% of the participants said they experienced change in their coffee drinking habits in a way that they started consuming less coffee.



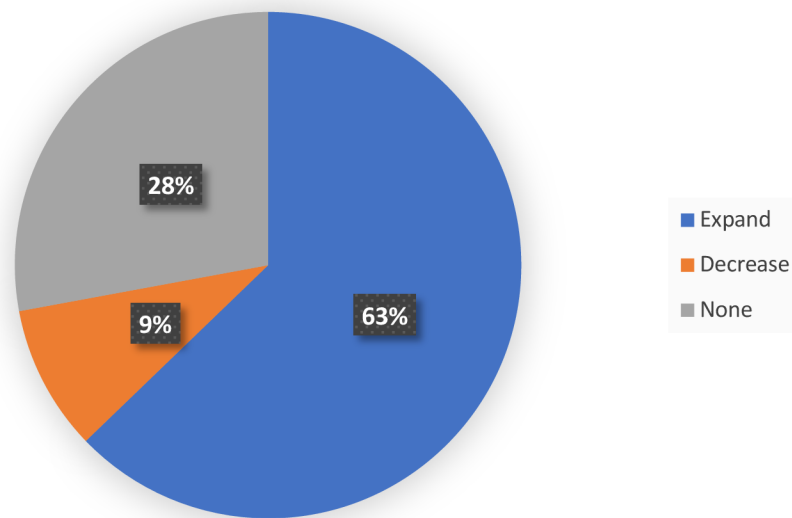
*Figure-4. Did your coffee drinking habits change after COVID-19? Source: Own processing*

The following questions were “What type of coffee do you prefer?”, “What type of coffee do you drink more?” and “What type of coffee do you think other people drink more?”. These questions were aimed at determining the coffee consumption habits among the general public. Figure 5 illustrates that majority of the respondents prefer drinking coffee from the coffee shops at 69%, people do drink the coffee from the coffee shops more at around 57 % and people think other people drink the coffee from the coffee shops more at almost 67% despite the lockdowns and social distancing regulations enforced due to COVID-19. Another popular way for people to consume coffee is through a coffee machine with almost 17% of the respondents preferring this type of coffee and approximately 21% drinking this type of coffee more. Nevertheless, drinking home instant coffee is as common as drinking coffee from the coffee machine at 21% despite the fact that only 14% regard home instant coffee as coffee of their preference.



*Figure-5. What type of coffee do you prefer?/ What type of coffee do you drink more?/ What type of coffee do you think other people drink more? Source: Own processing*

The last two questions were “How do you think COVID-19 impacted people’s coffee drinking habits?” and “Do you think coffee industry can expand or it is going downhill due to COVID-19?”. The results showed that around 60% of the respondents believed that people’s drinking habits did change with almost half of the respondents considering the change to be positive with drinking more coffee, while some people thought that on the opposite people began consuming less coffee at 49 % and 11%, respectively. Moreover, almost 40% of the sample believed that people’s coffee drinking habits did not change, regardless of COVID-19. Figure 6 shows that almost 63% (27 people) of the respondents’ view on coffee industry is that it is going to expand in the future, while 28% (12 people) think it will not change considerably in the future. Meanwhile, only 9% (4 people) of the respondents said that coffee industry’s size will decrease in the future.



*Figure-6. Do you think coffee industry can expand or it is going downhill due to COVID-19? Source: Own processing*

#### **4.1.2 Interview results**

The interview was implemented as a second data collection method in order to gain an in-depth knowledge regarding the international coffee trade and the impact of COVID-19 on the coffee trade on a global scale. The interviews were organized with open-ended questions in order to be able to grasp the complexity behind such economic issue related to COVID-19. Two interviews were conducted successfully in accordance with the initial plan. This part of the practical chapter will be organized in accordance with the findings discovered during the interviews. One of the participants is an agronomist from Brazil (Interviewee A), which is the largest exporting country of coffee. Moreover, Interviewee A is a coffee farmer and advisor providing consultations related to cultivation of coffee. The second participants of the interview (Interviewee B) is a manager at Starbucks in Almaty, Kazakhstan with around 3 years of experience in this field.

The first major finding from the interviews is that the role of the coffee industry extends from being a leisure activity in some countries, while it is the main source of income in others. For example, Interviewee B focused on the role of coffee sphere from the perspective of how attractive it is to the end-consumers. He has stated that coffee shops play a big role in the global economy because it is an activity that is very popular and trendy right now among the general public. On the other side, Interviewee A has highlighted the role of coffee industry from the side of the coffee producers mentioning

that for small communities in Africa and America Latina the coffee is the biggest source of income. Both of the interviewees agreed that coffee industry coffee plays more a social and cultural role than economic.

The second major finding is that coffee industry was on a rise prior to COVID-19 and the direction of change after it was that people's demand for higher quality coffee increased. According to Interviewee B, he stated prior to the spread of COVID-19, the Starbucks was developing with a rapid speed as the sales and budget plans have been getting successfully accomplished year after year. Interviewee A, has mentioned that exigencies for high quality coffee globally have been on the rise after the world was hit with the COVID-19 pandemic. Moreover, this type of emergence was noticed mainly in developed countries. He states that such events drove many farmers in Brazil to switch their focus on production from commodity beans to specialty coffee or certified coffee beans. This correlates with the Mordor Intelligence (2022) and Statista (2022) that projected that consumers in importing countries will likely switch from consumption of regular instant coffee to more luxury options in terms of quality.

The third major finding is that the short-term effects of COVID-19 included coffee production shortages, huge layoffs in companies specialized in coffee, rise in transportation costs as well as utilization of large amounts of products due to expiration. The interviewee A has stated that "For now the Brazilian coffee shortage expected for 2022 associated with a logistic crisis has leaded prices to rise. In Brazil harbors still pretty complicated to find containers to export beans worldwide". Meanwhile, Interviewee B stated that many employees that worked at Starbucks got laid off and lost their main source of income. Furthermore, he stated that in the year when the pandemic hit, the revenues of Starbucks coffee shops significantly decreased and many coffee products were thrown away due to expiration as many locations of Starbucks were no able to conduct their business due to social distance and travel restrictions.

The final finding of this data collection method is that many businesses continue to struggle both from the producers' side and the trading clients' side. According to Interviewee A, it is still hard to predict the long-term effects of COVID-19, but as of the current time, some exporting countries continue to experience struggles in growing their harvests and transporting those abroad. Moreover, Interviewee B has said that after the COVID-19, many coffee shops went out of business as the funding decreased and attracting customers became harder.

## 4.2 Discussion

Through the analysis of the survey and interview findings, it becomes apparent that the COVID-19 has definitely had an impact on the overall coffee industry and international coffee trade. According to 4.1.2, it has been revealed exporter countries, such as Brazil, have experienced shortages in production and export as there has been a variety of issues occurred in light of COVID-19. For example, the issues related to the spread of coronavirus include the disruption of transportation chains between the value chains of coffee trade as well as the travel restrictions for the actual workers of the farms in which coffee is produced. These findings correlate with those of Cuevas (2021) and Fromm (2022), which highlighted the losses experienced by coffee exporting countries and coffee growers in general.

The next important finding is that it seems that the coffee consumption patterns and trends did change after COVID-19. To be exact, it can be concluded from the findings in both 4.1.1 and 4.1.2 that people did begin consuming more coffee. Furthermore, findings in 4.1.2 highlight the change in the preferences of coffee consumers to more luxurious at-home coffee product options. However, it is also important to mention that coffee from the coffee shops, such as Starbucks, Costa Coffee or other local coffee businesses, is still the most preferred type of coffee among the general public as results in 4.1.1 suggest.

The final finding is that there is a positive outlook on the development of the coffee industry among the general public, but the experts emphasize that the negative consequences of COVID-19 are still prevalent for the businesses in the field of coffee. For instance, the results in 4.1.1 suggest that majority of the study participants believe that coffee industry will continue to grow despite the spread of COVID-19. Nevertheless, the findings in 4.1.2 show that for businesses involved in the supply chain of coffee to the final consumers, there are still major issues with transportation among coffee producers and decrease in sales among the coffee shops specializing in coffee retail.

## 5 Conclusion

The primary research objective of this bachelor thesis was to examine the effect of COVID-19 on the coffee industry, international coffee trade and future development of the coffee sphere. To conclude, it seems that COVID-19 has impacted the coffee industry both in short-term and long-term. The coffee production and exports experienced a short-term decline returning to the normal performance the next coffee year already. Moreover, coffee prices continue to increase as are the revenues and the future projections include huge increases in the overall global market value of the coffee industry. As coffee industry is the largest commodity traded around the globe, the well-being of this industry is vital for both the exporter countries and importer countries. The largest coffee growing countries in Latin America, such as Brazil, Columbia and many other, rely on coffee industry as the main source of wealth in the country. The issues that rose during COVID-19 are related to the developing coffee growing countries as the travel restrictions applied in light of COVID-19, have resulted in transportation disruptions for the farmers. According to the expert from Brazil, this issue still remains relevant as of 2022. However, on the positive side, the primary research showed that people did not stop consuming less coffee and some might have even increased their coffee intake during COVID-19. It seems that the coffee industry and international coffee trade will continue to expand, but the governments should be wary of the issues that take place in the main coffee exporting countries. It is important to resolve these issues before they turn into more serious problems.



## 6 References

- Armstrong, M. (2020, October 1). The countries most addicted to coffee. *Statista*. Retrieved from <https://www.statista.com/chart/8602/top-coffee-drinking-nations/>
- Barros, S., & Rubio, N. (2021). Annual Coffee Report. *United States Department of Agriculture: Foreign Agricultural Services*. Retrieved from [https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Coffee%20Annual\\_Sao%20Paulo%20ATO\\_Brazil\\_05-15-2021.pdf](https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Coffee%20Annual_Sao%20Paulo%20ATO_Brazil_05-15-2021.pdf)
- BBC. (2020). *The drink that kept us going through Covid-19*. Retrieved from <https://www.bbc.com/future/bespoke/made-on-earth/how-the-coffee-trade-survived-Covid-19.html>
- Caldarelli, C, Gilio, L., & Zilberman, D. (2019). *The Coffee Market in Brazil: challenges and policy guidelines*. California, Berkeley: UC Berkeley. doi:10.5380/re.v39i69.67891.
- Cappelletti, S., Piacentino, D., Sani, G., & Aromatario, M. (2015). Caffeine: cognitive and physical performance enhancer or psychoactive drug?. *Current neuropharmacology*, 13(1), 71–88. <https://doi.org/10.2174/1570159X13666141210215655>
- Cuevas, J. (2021, March 11). Fairtrade Brings Stability in a Volatile Market. *Sustainable Harvest*. Retrieved from <https://www.sustainableharvest.com/blog/understanding-coffee-prices-fairtrade>
- District Roasters. (2019, March 13). *Types of Coffee Beans and What Sets Them Apart*. Retrieved from <https://districtroasters.com/blogs/news/types-of-coffee-beans>

- Fromm, I. (2022). Building Resilient Value Chains After the Impact of the COVID-19 Disruption: Challenges for the Coffee Sector in Central America. *Frontiers in Sustainable Food Systems*, 5. <https://doi.org/10.3389/fsufs.2021.775716>
- Globe News Wire. (2021, February 9). *Global \$465.9 Billion Coffee Market (Value, Volume) Analysis and Forecast to 2026*. Retrieved from <https://www.globenewswire.com/news-release/2021/02/09/2172014/0/en/Global-465-9-Billion-Coffee-Market-Value-Volume-Analysis-and-Forecast-to-2026.html>
- Giuli, M. (2021, November 23). *The beat of the global coffee industry*. Retrieved from <https://coffeeknowledgehub.com/en/news/the-beat-of-the-global-coffee-industry>
- Gragusanu, R., & Nunn, N. (2020). The Effects of Fair Trade Certification: Evidence From Coffee Producers in Costa Rica. *National Bureau of Economic Research*. Retrieved from [https://scholar.harvard.edu/files/nunn/files/fair\\_trade\\_draft\\_january\\_2019.pdf](https://scholar.harvard.edu/files/nunn/files/fair_trade_draft_january_2019.pdf)
- International Coffee Organization. (2020). *Coffee Break Series No. 1. Impact of COVID-19 on the global coffee sector: The demand side*. Retrieved from <https://www.ico.org/documents/cy2019-20/coffee-break-series-1e.pdf>
- International Coffee Organization. (2021). *Coffee Market Report*. Retrieved from <https://www.ico.org/documents/cy2020-21/cmr-0821-e.pdf>
- International Coffee Organization. (2021). *International Coffee Agreement 2007 - Benefits of membership*. Retrieved from [https://www.ico.org/Benefits\\_ICA2007.asp](https://www.ico.org/Benefits_ICA2007.asp)

- International Coffee Organization. (2022). *Trade Statistics – 2022*. Retrieved from <https://www.ico.org/#:~:text=In%202019%2F20%2C%20world%20coffee,in%20coffee%20year%202019%2F20>.
- International Coffee Organization. (2022). *Members of the International Coffee Organization*. Retrieved from [https://www.ico.org/members\\_e.asp?section=About\\_Us](https://www.ico.org/members_e.asp?section=About_Us)
- International Labour Organization. (2020). *Sustainable supply chains to build forward better*. Retrieved from [https://www.ilo.org/wcmsp5/groups/public/---ed\\_dialogue/---sector/documents/genericdocument/wcms\\_777245.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/genericdocument/wcms_777245.pdf)
- Krishnan, S. (2017). Sustainable Coffee Production. *Environmental Science*. <https://doi.org/10.1093/acrefore/9780199389414.013.224>
- Kucukkomurler, S. & Ozgen, L. (2009). Coffee and Turkish Coffee Culture. *Pakistan Journal of Nutrition*, 8(10), 1693-1700.
- Leonard, T. M. (2006). *Encyclopedia of the Developing World*. London, U.K.: Routledge. Taylor & Francis Group.
- Livelihoods. (2021, December 14). *From the seeds to your cup: Global Coffee Production, In 5 Key Facts & Figures*. Retrieved from <https://livelihoods.eu/from-the-seeds-to-your-cupglobal-coffee-production-in-5-key-facts-figures-2/>
- Max Havelaar Foundation. (2013). *How did it start?*. Retrieved from <https://web.archive.org/web/20130116135359/http://www.maxhavelaar.nl/faq/how-did-it-start?destination=english&backtitle=FAQ%27s>
- Mordor Intelligence. (2022). Coffee Market - Growth, Trends, COVID-19 Impact, and Forecasts (2022 - 2027). *Research and Markets*. Retrieved from

<https://www.researchandmarkets.com/reports/5165416/coffee-market-growth-trends-covid-19-impact>

Mordor Intelligence. (2020). *Global Coffee Market*. Retrieved from

[https://samples.mordorintelligence.com/46502/Sample%20-%20Global%20Coffee%20Market%20\(2021%20-%202026\)%20-%20Mordor%20Intelligence1619526963202.pdf](https://samples.mordorintelligence.com/46502/Sample%20-%20Global%20Coffee%20Market%20(2021%20-%202026)%20-%20Mordor%20Intelligence1619526963202.pdf)

National Coffee Association. (2020). *Impact of Covid-19 on E-Commerce in the Coffee*

*Industry*. Retrieved from <https://www.ncausa.org/Industry-Resources/Webinars/Impact-of-Covid-19-on-E-Commerce-in-the-Coffee-Industry>

National Coffee Organization. (n.d.). *The History of Coffee*. Retrieved from

<https://www.ncausa.org/about-coffee/history-of-coffee>

National Coffee Organization. (n.d.). *The NCA USA Economic Impact Report*.

Retrieved from [https://www.ncausa.org/Research-Trends/Economic-Impact#:~:text=Coffee%2Drelated%20economic%20activity%20comprises,in%20taxes%20\(including%20ancillary%20goods\)](https://www.ncausa.org/Research-Trends/Economic-Impact#:~:text=Coffee%2Drelated%20economic%20activity%20comprises,in%20taxes%20(including%20ancillary%20goods))

Nguyen, H & Vo, T. (2021). The role of the coffee industry in sustainable economic development in Vietnam. *Accounting*, 7(3), 683-690.

Nestle. (2021, February 18). Full-year report 2020. Retrieved from

<https://www.nestle.com/media/pressreleases/allpressreleases/full-year-results-2020>

Pendergrast, M. (2010). *Uncommon Grounds: The History of Coffee and How It Transformed Our World*. London: Texere.

Rhiney, K., Guido, Z., Knudson, C., Avelino, J., Bacon, C.M., Leclerc, G., Aime, M.C., Bebbler, D.P. (2021). Epidemics and the future of coffee production.

*Proceedings of the National Academy of Sciences of the United States of America*, 118(27), doi:10.1073/pnas.2023212118

Ridder, M. (2022, January 13). Total coffee imports and exports worldwide. *Statista*.

Retrieved from <https://www.statista.com/statistics/225403/total-global-coffee-imports-and-exports/>

Ruggeri, G., & Corsi, S. (2021). An Exploratory Analysis of the FAIRTRADE

Certified Producer Organisations. *World*, 2(4), pp. 442-455.

<https://doi.org/10.3390/world2040028>

Slavova, G., Georieva, V. (2019). World Production of Coffee Imports And Exports In

Europe, Bulgaria and USA. *Trakia Journal of Sciences*, 17(1), 619-626.

Statista. (2022). *Coffee*. Retrieved from [https://www.statista.com/outlook/cmo/hot-](https://www.statista.com/outlook/cmo/hot-drinks/coffee/worldwide)

[drinks/coffee/worldwide](https://www.statista.com/outlook/cmo/hot-drinks/coffee/worldwide)

Statista. (2022). *Coffee Report 2022*. Retrieved from

<https://www.statista.com/study/48823/coffee-report/>

Tucker, C. M. (2017). *Coffee Culture*. New York, U.S.A: Routledge.

Ukers, W. H. (1922). *All about Coffee*. New York, U.S.A.: The tea and coffee trade journal company.

Urban Bean Coffee. (2022, March 1). *Coffee Statistic in U.S.A*. Retrieved from

<https://urbanbeancoffee.com/coffee/usa-coffee-statistics/>

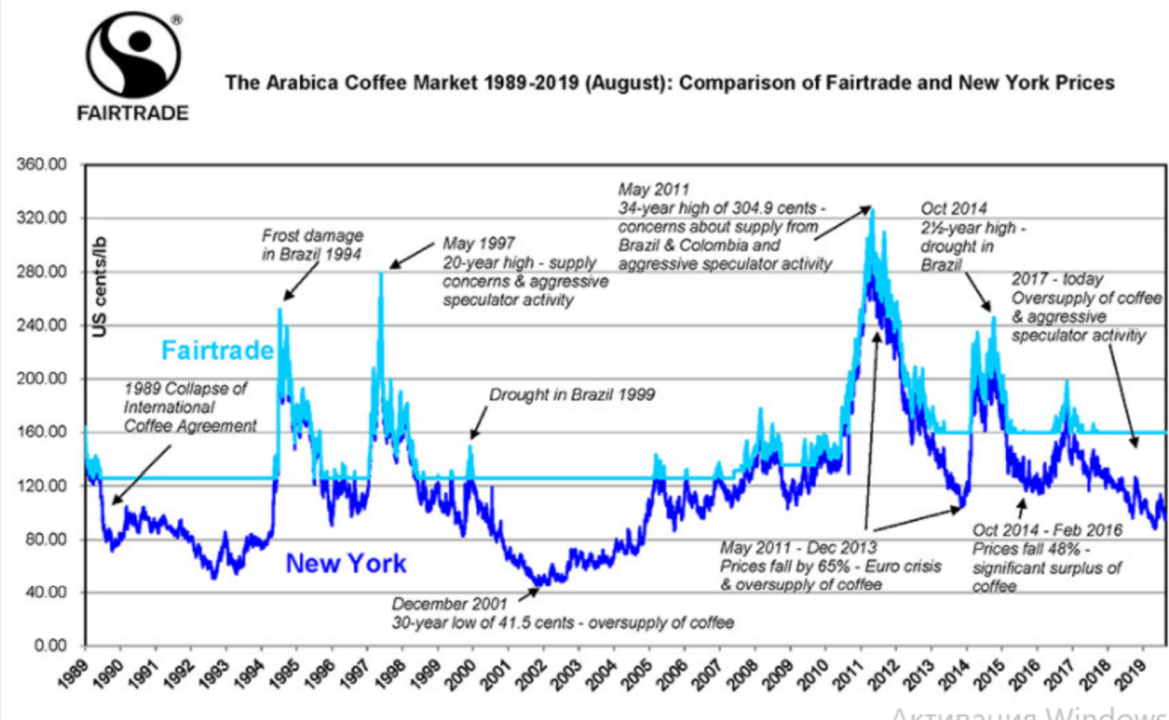
USDA Foreign Agricultural Service. (2019). *Brazil: Coffee Annual*. Retrieved from

<https://www.fas.usda.gov/data/brazil-coffee-annual-4>

## 7 List of pictures, tables, graphs and abbreviations

### 7.1 List of pictures

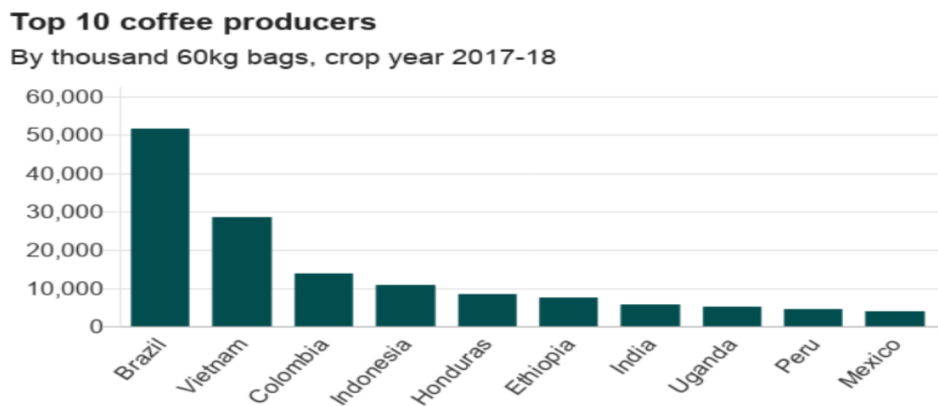
Table 2.1 Arabica Coffee Market Prices: 1989-2019



Source: Fair Trade International (2019). Retrieved from

<https://www.fairtrade.net/news/wake-up-six-reasons-to-choose-fairtrade-coffee>

Table 2.2 Top 10 coffee producers



Source: International Coffee Organization

BBC

Source: BBC News. (2018). Retrieved from <https://www.bbc.com/news/business-43742686>

Table 2.3 Top coffee exporters between 2016-2017 and 2017-2018.

Source: Slavova & Georgieva. (2019). Retrieved from [http://tru.uni-](http://tru.uni-sz.bg/tsj/Volume%202017,%202019,%20Supplement%201,%20Series%20Social%20Sciences/3/za%20pe4at/98.pdf)

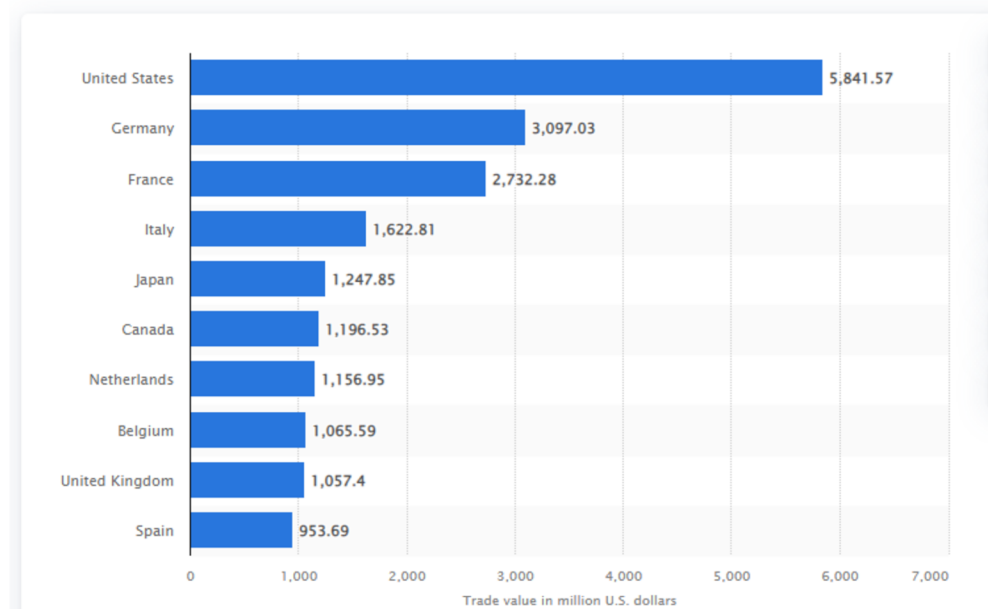
N	Exporting country	Billion dollars	Percentage growth against the total coffee exports
1.	Brazil	4,60	14,1%
2.	Vietnam	3,50	10,7%
3.	Germany	2,64	8,1%
4.	Colombia	2,58	7,9%
5.	Switzerland	2,20	6,9%
6.	Italy	1,60	5,0%
7.	Indonesia	1,19	3,6%
8.	Honduras	1,16	3,6%
9.	France	1,07	3,3%
10.	Belgium	0,94	2,9%
12.	Ethiopia	0,93	2,9%
13.	Usa	0,87	2,7%
14.	Holand	0,75	2,3%
15.	Guatemala	0,74	2,3%

[sz.bg/tsj/Volume%202017,%202019,%20Supplement%201,%20Series%20Social%20Sciences/3/za%20pe4at/98.pdf](http://tru.uni-sz.bg/tsj/Volume%202017,%202019,%20Supplement%201,%20Series%20Social%20Sciences/3/za%20pe4at/98.pdf)

Table 2.4 Top coffee exporters between 2016-2017 and 2017-2018.

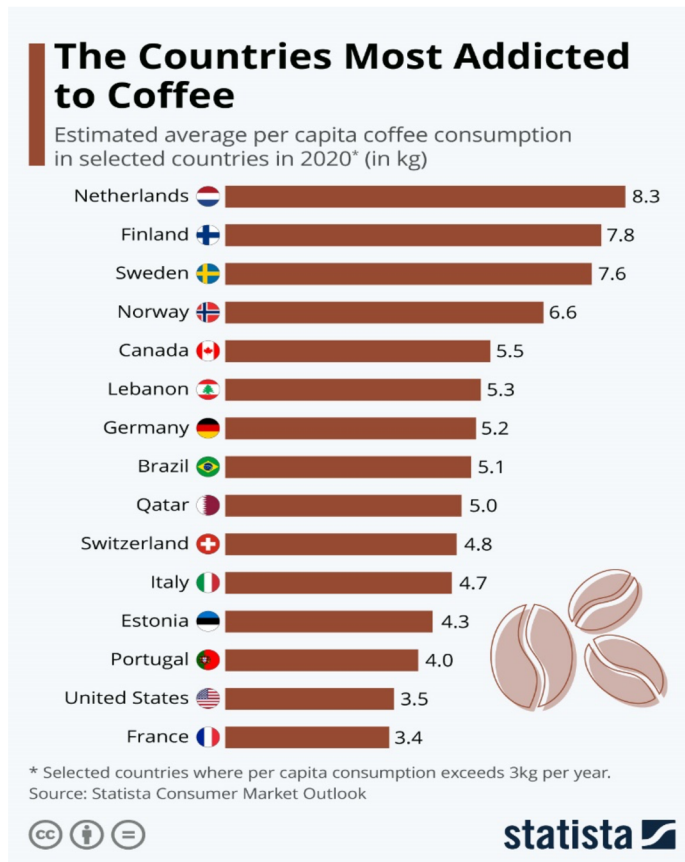
### Leading coffee importing countries worldwide in 2019

(in million U.S. dollars)



Source: Statista. (2021).

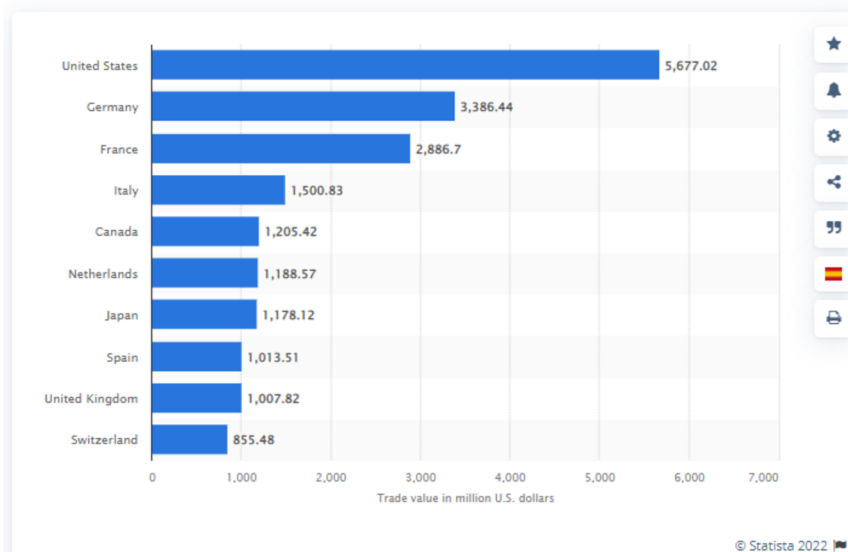
Table 2.5 Top 15 coffee consumer per capita (in kg) in 202



Resource: Armstrong, M. (2020). Retrieved from <https://www.statista.com/chart/8602/top-coffee-drinking-nations/>

Table 2.6 Leading coffee importing countries in 2020

### Leading coffee importing countries worldwide in 2020 (in million U.S. dollars)

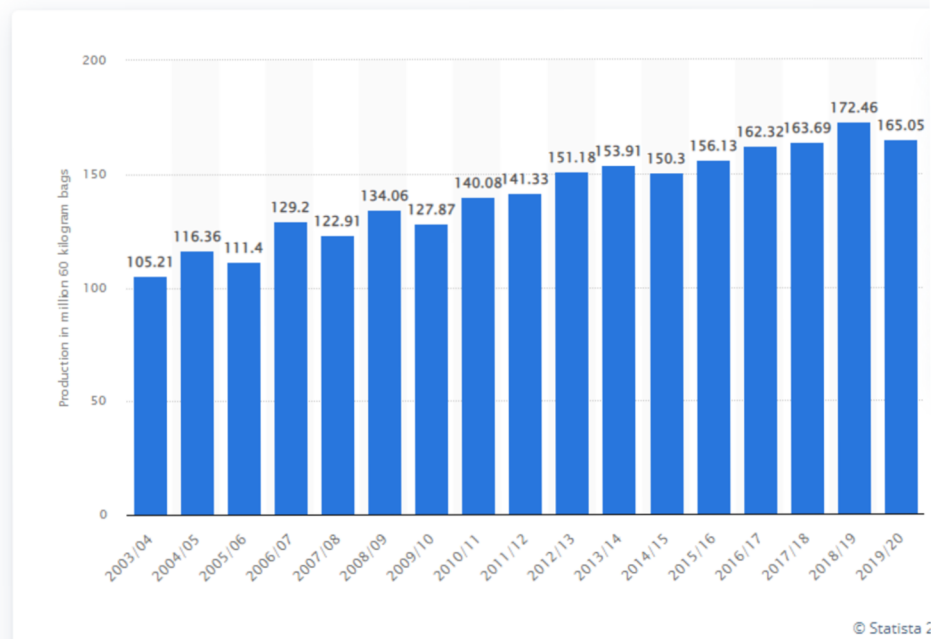




Source: Statista. (2022). Retrieved from <https://www.statista.com/statistics/1096400/main-import-countries-for-coffee-worldwide/>

Table 2.7 Coffee production worldwide from 2003/2004 to 2019/2020 (in million 60 kilogram bags)

Coffee production worldwide from 2003/04 to 2019/20 (i

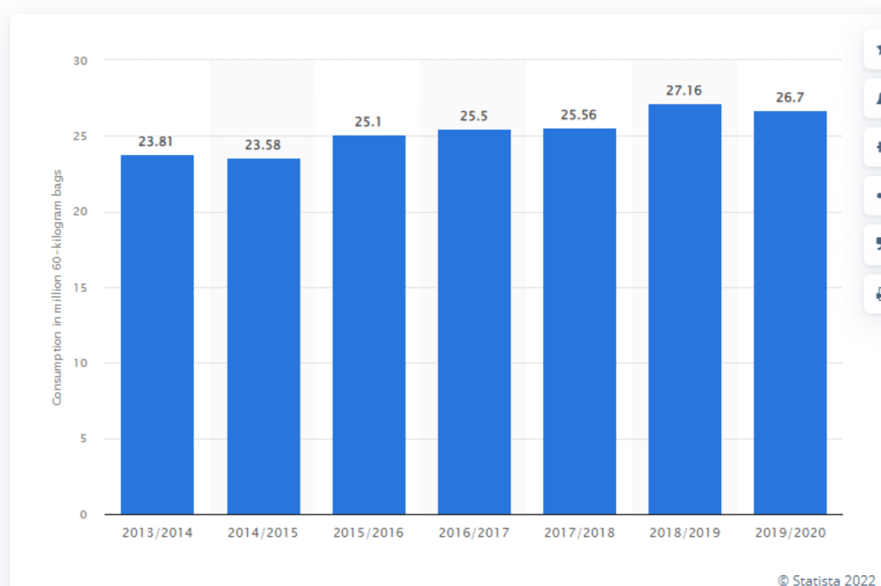


Source: Statista. (2022). Retrieved from

<https://www.statista.com/statistics/263311/worldwide-production-of-coffee/>

Table 2.8 Domestic consumption of coffee in the U.S.A. from 2013/2014 to 2019/2020

**Domestic consumption of coffee in the United States from**  
(in million 60-kilogram bags)



Source: Statista. (2022). Retrieved from

<https://www.statista.com/statistics/804271/domestic-coffee-consumption-in-the-us/>

Table 2.9 Arabica coffee price index between April, 2020 until March, 2022



Source: CEPEA. (2022). Retrieved from

<https://www.cepea.esalq.usp.br/en/indicator/coffee.aspx>

Table 2.10 Robusta coffee price index between April,2020 until March, 2022



Source: CEPEA. (2022). Retrieved from

<https://www.cepea.esalq.usp.br/en/indicator/coffee.aspx>

## 7.2 List of graphs

Figure-1. What is your age bracket? Source: Own processing

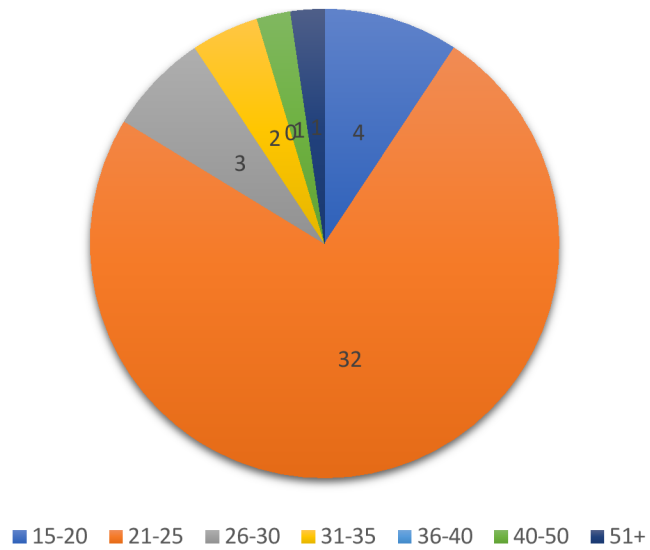


Figure-2. Do you drink coffee? Source: Own processing

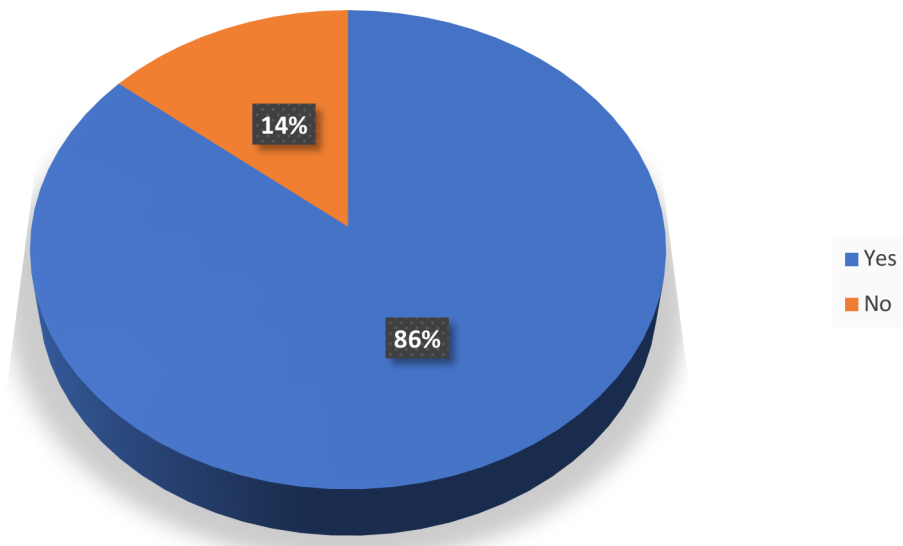


Figure-3. How many cups of coffee do you drink per day? Source: Own processing

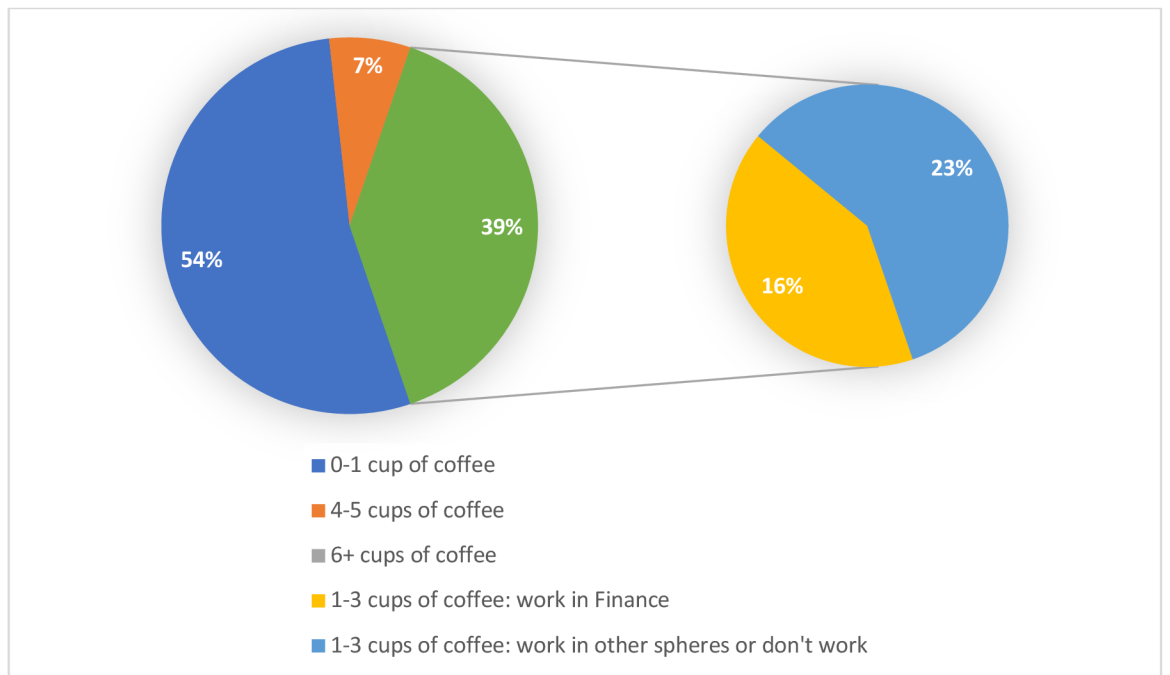


Figure-4. Did your coffee drinking habits change after COVID-19? Source: Own processing

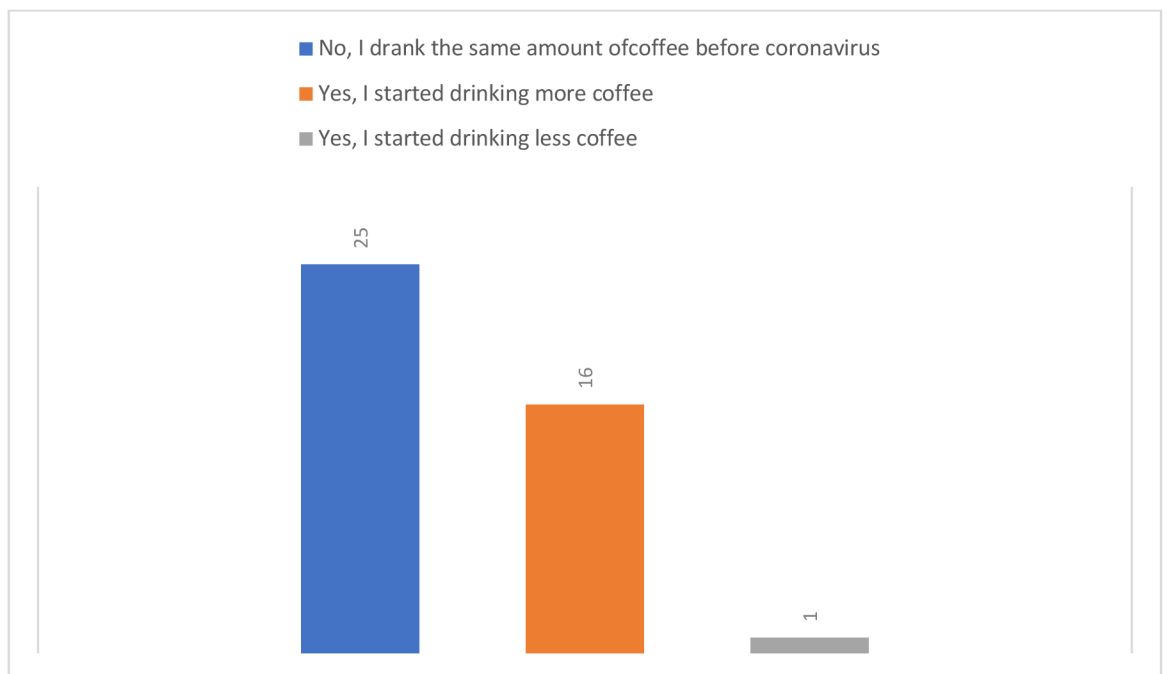


Figure-5. What type of coffee do you prefer?/ What type of coffee do you drink more?/ What type of coffee do you think other people drink more? Source: Own processing

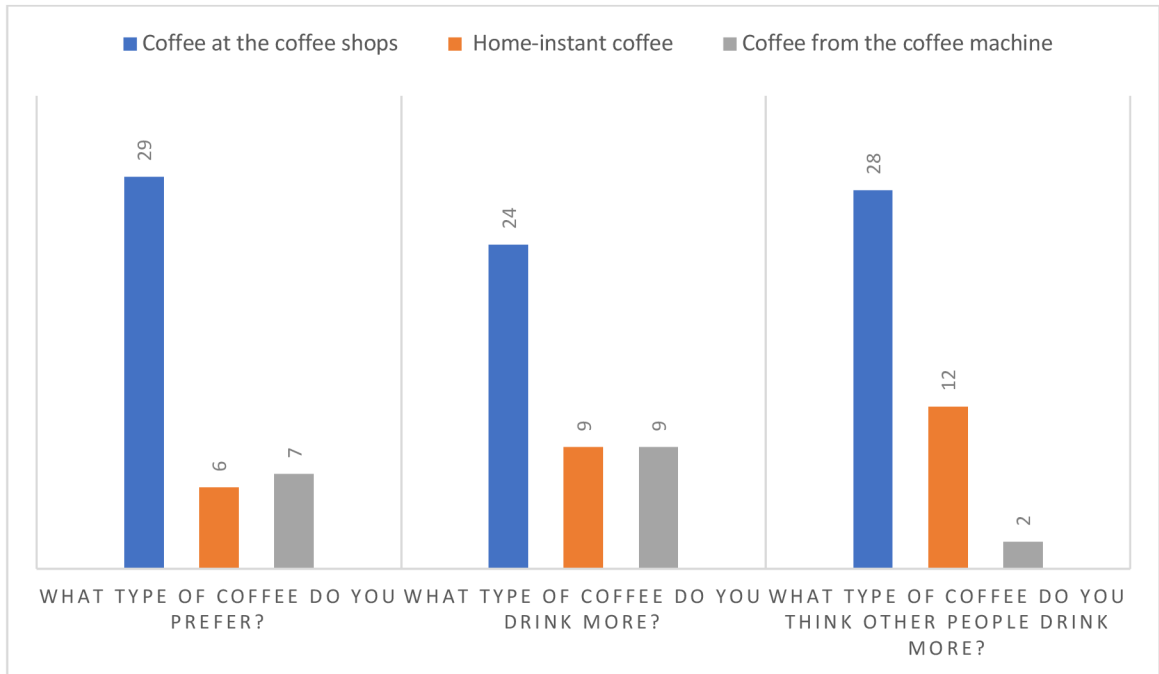
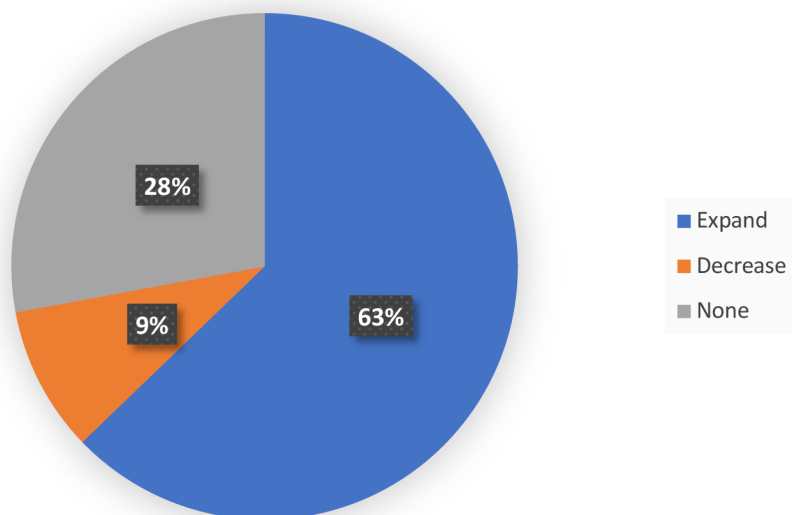


Figure-6. Do you think coffee industry can expand or it is going downhill due to COVID-19? Source: Own processing



## 8 Appendix

### Survey questions

9. Where are you from? (Your primary country of accommodation) (Open question)
10. Do you drink coffee?
  - c) Yes
  - d) No
11. How many cups of coffee do you drink per day?
  - e) 0-1 cup
  - f) 1-3 cups
  - g) 4-5 cups
  - h) 6+ cups
12. Did your coffee drinking habits change after COVID-19?
  - d) No, I drank the same amount of coffee before coronavirus
  - e) Yes, I started drinking more coffee
  - f) Yes, I started drinking less coffee
13. What type of coffee do you prefer?
  - d) Coffee at the coffee shops (ex. Starbucks, local coffee shop)
  - e) Home-instant coffee
  - f) Coffee from the coffee machine
14. What type of coffee do you drink more?
  - d) Coffee at the coffee shops (ex. Starbucks, local coffee shop)
  - e) Home-instant coffee
  - f) Coffee from the coffee machine
15. How do you think coffee impacted people's coffee drinking habits?
  - d) People started drinking more coffee
  - e) People started drinking less coffee
  - f) Nothing changed
16. Do you think coffee industry can expand or it is going downhill?
  - d) Expand
  - e) Decrease
  - f) None

**Interview questions**

1. What is the role of coffee industry in the global economy?
2. What was the direction of coffee industry's development prior to COVID-19? Did it change after the spread of COVID-19?
3. How did COVID-19 impact coffee industry and international coffee trade?
4. What are the short-term consequences of COVID-19 on the coffee industry and international coffee trade?
5. Are there any long-term consequences of COVID-19 on the coffee industry and international coffee trade?