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Haute école de gestion  
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# **The Impact of Sustainable Trends on the Swiss Romande Coffee Market**

**Bachelor Project submitted for the degree of  
Bachelor of Science HES in International Business Management**

by

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# Executive Summary

Coffee farming has several social, environmental, and economic negative externalities. Labels try to reduce said externalities and make coffee farming sustainable. Switzerland is a heavy coffee-consuming market; however, they care about externalities their consumption generates. The purpose of this research is to study the sustainable coffee market in the Swiss Romande.

Primary and secondary data were collected, developed, and analyzed to understand the coffee market in the Swiss Romande. The primary data was gathered using two different methods. The first method was the collection of coffee supply data in different stores in the Swiss Romande; as well as the type of coffee and characteristics being sold in this market. The second method was to run an online survey to understand the perception and habit of purchase of coffee by the Swiss Romande consumers.

The data collection helped fulfill three objectives. First, to analyze all the variables that affect the purchase price of coffee in the Swiss Romande market. The analysis of these variables helped to define the effect sustainable labels have on coffee pricing. Second, to evaluate the perception and trust of the Swiss Romande consumers on sustainable coffee. Finally, to determine what are the demographic variables affecting knowledge and purchase behavior towards sustainable labels.

The results indicate that the final coffee price is mainly affected by branding. Nevertheless, eco-friendliness makes the purchase price higher, unlike Fairtrade labels that do not affect coffee pricing. Additionally, consumers are more trusting toward Swiss-made labels, as they believe them to impact social, economic, and environmental issues. The analysis also defines demographic variables of the Swiss Romande coffee consumers who do not currently buy sustainable coffee; recommending how to target them, in the direction of a more sustainable consumption. The mentioned recommendations stipulate how eco-friendly coffee farming improves the taste of coffee, and how advertising this message can increase the sales of sustainable coffee. This recommendation aims at firms venturing, or currently competing, in the Swiss Romande market, by adapting their message to target the right consumers.

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# 1. Introduction

Nowadays, we live in a period where ecology, and global warming, are the center of discussion of society's concerns. These concerns also involve the farming of conventional coffee. After all, its traditional production pollutes and destroys the ecosystem and consumes a considerable amount of water. In addition to the environmental impact, there is also an economic and social impact. Economic and social effects in the form of small coffee farmers who are paid a tiny fraction of the income generated by coffee, which results in social inequality and poverty in coffee-producing countries (Yune, Tebany, 2019).

A solution to avoid all the negative externalities resulting from conventional coffee is to farm sustainably. For a coffee to be sustainable, it needs to include environmental, economic, and social components (Bacon, Mendez, Ernesto, 2008, P27). The coffee should then increase the revenue of the producers, ensure stability with long-term contracts for producers, and guarantee environmental durability (Swiss fair trade, 2018).

With an annually growing demand, the total supply of coffee has been equally increasing, and the share of sustainable coffee has been considerably growing within total production since 2008 (Larrera, Bermudey, Voora, 2019).

Swiss consumers are the 3rd biggest coffee drinkers in the world. The average Swiss consumer drinks 1110 cups of coffee per year, the equivalent of 3.04 cups of coffee per day (Bilan, 26 November 2018). This level of intake shows the presence of coffee in Swiss culture. Moreover, Swiss consumers are increasingly concerned about their social and ecological impact, greatly influencing their coffee consumption. Furthermore, sustainability commitments are becoming more popular, and companies are required to conform to these commitments (Euromonitor, 2019).

This study aims to understand the sustainable coffee market in the Swiss Romande by analyzing the current market supply and then understanding the consumer behavior towards sustainable coffee labels, identifying the reasoning behind their choices.

## **2. Literature Review**

### **2.1 Coffee on the International Market**

Today, about 80 tropical countries produce the global supply of coffee, with an average of 125 million people working for this industry (Krishnan, Sarada, 2017). In 2020, worldwide coffee consumption rose to 166 million bags of 60 kg of coffee (International Coffee Organization; 2021). Therefore, the coffee market has been valued at 436.632 billion USD for 2021 and is expected to grow in the upcoming years (Statista, 2021).

#### **2.1.1 Coffee Producing Countries:**

The top 3 producing countries of coffee are Brazil, Vietnam, and Colombia. Brazil alone is responsible for 40% of the global supply, and Vietnam around 20%. Hence, the two countries supply 60% of the world's coffee industry (Statista, 2020).

### **2.2 Types of Coffee Farming**

#### **2.2.1 Conventional Coffee Farming:**

Coffee is farmed using heavily chemically synthetic fertilizers, pesticides, herbicides, fungicides, and insecticides. These synthetic chemicals impact the soil and the coffee bean quality, but they also affect farmers using them and consumers drinking them. Additionally, the air and water supply of the surrounding communities are equally damaged (Fiore, 2019).

#### **2.2.2 Biological and Organic Coffee Farming:**

Organic farming produces coffee using an agro-ecosystem method; based on biodiversity, biological nutrient cycles, and soil fertility. This type of farming aims to reach an agro-ecosystem that allows complete ecological agriculture without using any chemicals or synthetic products (Patricia, 2011). Biological and Ecological farming methods deriving from organic farming and are used to produce coffee in a more environmentally friendly way. The main goal is to eliminate from the production all contamination with synthetic-inorganic chemicals (Wintgens, 2009).

## 2.3 Coffee Beans:

The coffee market mainly offers two types of globally traded coffee beans, Robusta, and Arabica. Robusta bean is valued at a lower price since the Arabica bean is considered of higher quality (KOWALSKI, 2020). Arabica is deemed better because of its favorable balance of healthy compounds compared to Robusta (Bruckman, 2020).

In addition to Robusta and Arabica, two other coffee beans are less popular and hard to produce in large enough quantities to satisfy global demand: Liberica and Excelsa. They are farmed in minimal amounts and consumed only by coffee enthusiasts (ROASTERS, 2021).

There is also a new type of coffee bean called Stenophylla. This coffee bean can grow in warmer conditions; making it handy for the future since global warming will reduce the production of Arabica and Robusta, given that scientists predict that half of the land used to grow coffee today will be unproductive by 2050 (BRINGS, 2021).

## 2.4 Factors Affecting Coffee Taste:

Coffee taste is affected by several factors. Delonghi, one of the biggest coffee machine manufacturers in the world, indicated the following criteria as the most impactful for coffee flavor:

- **Growing conditions:** The growing state of the coffee affects the taste: soil, altitude, wind, and rainfall play a role in the coffee plant and its flavor.
- **Type of bean:** As mentioned before, there are two main types of coffee beans, Arabica, and Robusta. Using Arabica will enrich the coffee flavor, impacting taste.
- **Type of roasting:** There are three types of roasting, dark, medium, and light roasts. Each roast makes the coffee stronger or lighter.
- **The freshness of the bean:** The longer a bean will be stored after being roasted, the least fresh it will be. If the bean is not fresh enough, the coffee will lose its flavor.
- **Type of brewing equipment:** The coffee machine and grind size used will impact the taste.

The Intercontinental Coffee Trading Company (ICT) indicates the same factors as Delonghi. However, they insist on another crucial element, the farming practices impact

flavor. If chemicals are used to grow coffee, it will affect the crop's quality and negatively impact taste (Intercontinental Coffee Trading, 2019).

## **2.5 Conventional Coffee Farming Ecological and Societal Externalities:**

Farming conventional coffee has numerous negative externalities. Traditional coffee farming pollutes, destroys the ecosystem, and consumes a considerable quantity of water. On top of the environmental impacts, there are also economic and social externalities which are reflected through the wages of coffee farmers, as they are paid in a tiny fraction of the income generated by the coffee industry. This results in social inequality in some coffee-producing countries. Moreover, global warming is negatively contributing to the future of coffee farming; the Center for Tropical Agriculture released a report warning that 50% of land used to grow coffee today will be unsuitable in 2050 (Yune, Tebany, 2019).

### **2.5.1 Coffee Farming Environmental Negative Externalities:**

- **Deforestation:** There are two types of coffee plants, ones that grow in the shades and other ones that grow in the sun. The coffee plantation that grows in the sun produces more coffee than the one that grows in the shadows. In consequence, the areas being deforested have increased during the past years to make place for agricultural lands. This deforestation causes the soil to lose its quality after a few years and reduces the rainforest, causing many animals to lose their habitats and struggle to survive (VARCHO, 2021).
- **Soil and water impact:** Deforestation impacts the soil as it loses important organic components, such as carbon (Matson, 1997, p 504). The fertilizers used to farm conventional coffee plants load the ground with nitrate. The nitrate not only impacts the health of the soil, but also the water sources next to it (Gliessman, 2001). Conventional coffee farming uses pesticides, affecting the soil, water sources, and crops (Varcho, 2021). One hundred forty liters of water are required to produce one cup of coffee (FAO, 2009). This quantity considers only the water needed to irrigate the plantation. If we take the negative impact of fertilizers and pesticides over the water sources next to the farms, the number will increase.

### **2.5.2 Coffee Framing Social Negative Externalities:**

Small farmers in developing countries export green unroasted beans to coffee-producing countries in bulk. The roasting process happens during coffee production and thus the coffee beans gain value after roasting. This causes small farmers to be paid only a tiny fraction of the final coffee price (Mashoo, Hunt, 2019). Additionally, the global coffee industry is suffering from a price crisis, one of the reasons being the oversupply and the increased activity of hedge funds. This situation pushes 61% of small coffee farmers to sell their coffee below the cost of production (Fairtrade international, 2021). As a result, coffee value is not captured by farmers but by big coffee-producing companies. Coffee farmers earn less than 10 percent per pound of retail coffee value.

Considering the environmental changes that will lead to a loss estimated at 50% in farmable lands by 2050, adding the small profit farmers gain from coffee production leads to economic problems resulting in their incapacity to pay for their wellbeing, and therefore having no savings, or alternative sources to compensate their financial struggles that will only worsen in the upcoming years.

## **2.6 Definition of Sustainable Coffee:**

Sustainable coffee tackles social, economic, and environmental issues. It does not negatively impact the environment and give the small farmers enough income to live decently. Thus, coffee should be Fairtrade and eco-friendly at the same time. (Bacon, Mendez, Ernesto, 2008, P27).

### **2.6.1 Fairtrade Coffee Label:**

Fairtrade coffee labels care about the well-being of the farmers. These labels deal with the social and economic issues small farmers struggle with every day.

Aiming to improve the lives of coffee bean farmers, the Fairtrade labels have three objectives. They give the farmers financial stability by offering a minimum price for coffee even in a financial crisis. They pay the farmer a premium to plan their future and afford a certain life quality. The last objective is to support farmers' cooperatives and associations to give the farmers a better negotiating power over the big coffee manufacturing companies. (Fairtrade International, 2021)

### **2.6.2 Ecological Coffee Label:**

Ecological coffee is grown, harvested, and prepared for the market without harming the environment. To be ecological, it should deal with all environmental issues mentioned

before such as being organic, sustainable, animal-friendly, and biodiversity-friendly (IISD,2004).

## **2.7 The Impact of Sustainable Labels**

Each label has its impact on the targeted objective. If we take the Fairtrade international organization as an example, in 2016, they reached 19 billion coffee cups sold with its label. These large coffee quantities sold under Fairtrade labels, create significant value for the coffee farmers, thus giving them a better lifestyle. The total premium the coffee farmers received for 2019 was around 190.6 million euros. The premium has been growing to the advantage of the coffee farmers yearly (Fairtrade international, 2021)

Regarding the ecological impact, sustainable labels are focused on using organic farming which helps reduce the level of chemicals in the soil, corps, and water next to the farming land.

### **2.7.1 The Difference Between Self-Created Labels and Labels Created by Third-Party Organizations:**

For a coffee-producing company to get a third-party sustainable label, it needs to comply with all the criteria demanded in the general agreement. This process can be complicated for some coffee manufacturers since these third parties insist on details. Furthermore, all agreements should be respected without any exception or the label from these parties would not be given. This drives some major retailers to create their labels based on their code of ethics to set a particular guideline for their purchase behavior. These guidelines aim for the coffee producers and farmers to adopt sustainable behavior toward social and environmental issues. (IISD, 2004)

### **2.7.2 Can we Consider Self-Labeling Reliable?**

As mentioned before, some retailers choose self-created labels inspired from their code of ethics as they find themselves unable to meet all the requirements for the third parties' labels. This shows that the self-created labels are less rigorously substantial than third-party labels. We will consider one of the biggest coffee producers with a self-made label to assess this issue.

Starbucks has created a label called "Coffee and Farmer Equity Practices" under the acronym of C.A.F.E, which is based on Starbucks' code of ethics. The goal of the label is to use only durable coffee, mentioning fair trade and eco-friendliness. However, regarding eco-friendliness, Starbucks does not mention the complete stop of using

chemicals for agriculture but reducing chemicals. For fair trade, they are creating new programs to help the farmers develop their farms. Starbucks states that 99% of its coffee is ethically sourced (Starbucks, 2021).

In 2018, the coffee price dropped considerably around the world. Many small farmers could not even pay their charges. Starbucks committed 20 million dollars to help the farmer in central America until the coffee prices rose above production costs (Mashoo, Hunt, 2019).

Michelle Burns, head of coffee at Starbucks, stated, *"For us, that is an initial step, acknowledging we need to do something helpful in the near term in the countries that need it most"* (Mashoo, Hunt, 2019).

However, Starbucks was caught in a child labor scandal in 2020 because one of the farms they were supplying from in Guatemala was employing children under 13 in their coffee farms. An internal audit of the company did not discover this issue but "Dispatches" an external organization (The Guardian, 2020). This shows that the mean used for controls is not the best.

### **2.7.3 The Limitation of Labels:**

The *"Association pour la promotion du café"* estimates that only between 10% to 25% of the small farmers are organized as a group. This complicates the participation of the rest of the farmers to benefit from fair-trade programs. They also believe that half of the coffee sold without a label is actually eco-friendly but it is sold as conventional coffee due to liquidity problems on the supply chain. (Procafé, 2021)

## **2.8 Swiss Coffee Consumption**

Swiss consumers are the 3rd biggest coffee drinkers in the world. The average Swiss consumer drinks up to 1110 cups of coffee per year, which is the equivalent of 3.04 cups of coffee per day (Bilan, 2018). Switzerland has consumed 64 440 thousand kg of coffee in 2020 (International Coffee Organization; 2021). These numbers show how much Swiss people have the culture of coffee embodied in them and how much they consume it.

### **2.8.1 Swiss Romande Sustainable Interest**

Swiss consumers are increasingly concerned about their social and ecological impact. Such a change has been greatly influencing coffee consumption, where commitments toward sustainability are becoming more popular and companies are increasingly

required to conform to them (Euromonitor, 2019). The Swiss population consumes more sustainable products throughout the year. Swiss Fairtrade estimated consumption growth for sustainable products at 2.6% for 2019 compared to 2018 (Swissfairtrade, 2020).

## **3. Research Methods:**

### **3.1 Methodology:**

#### **3.1.1 Hedonic Study:**

This study aims to define the impact of ecological and Fairtrade labels on coffee's final price in the Swiss Romande. The Hedonic study helps us measure the impact of the said labels on coffee prices, as well as identify the most critical characteristics involved in the process.

On this account, we are going to be using the hedonic pricing model which helps identify price factors according to the premise that price is determined both by internal characteristics of the good being sold and external factors affecting it (Hargrave, 2021).

To be able to conduct this research, we had to generate a database which we created through the following steps:

First, we had to select the most important stores selling coffee in the Swiss Romande. We based the said selection on the answers obtained in the qualitative study conducted in the next chapter. As a result, the shortlisted stores were Lidl, Migros, Coop, Globus (Galaxus), Manor, and the Nespresso store.

Secondly, we had to choose the variables that might have an impact on the price. The following variables were included: type of the coffee bean (Robusta, Arabica, Arabica with Robusta), the size of the packaging, the kind of grind and packaging (capsule, beans, ground coffee, amongst others.), strongness of the coffee (from 1 to 5 one is very light coffee, five strong coffee), the brand name, the price, Fairtrade label, ecologic label, the selling store, and if it is single-origin or not. The single-origin was defined as whether the coffee comes from one single region or country. All information on the selected coffees have been recorded based on their packaging claims.

The last step was to record all the variable information we could find in the selected stores on an excel sheet, thus facilitating the data analysis. Due to COVID-19 restrictions, all data collection has been conducted on the selected stores' websites. The recording of the data took place between February and March 2021. The periodical discounts were not considered to avoid any price mismatch between the stores and statistical bias.

Multiple regression has been run with all the selected variables to conduct the Hedonic price method. The results of both the quantitative and qualitative variables have been recorded accordingly.

The selected quantitative variables were the price, the strongness, and the size. Since the size of capsules relates to the number of capsules instead of coffee weight, we replaced the number of capsules with the coffee weight in them. The average coffee weight in a capsule is 5 grams each (Barrantes, 2020). For example, the Dolce Gusto sold in Lidl has 30 capsules, the size is then 150 grams. Moreover, the size recording for each coffee has been automatically converted to grams.

The qualitative variables were the grinding process, the type of coffee bean, the brand, the fair trade and ecological labels, the selling store and single origin. To run a multiple regression for these variables, we had to change them to dummy variables. The dummy variables took the value of 1 if they answer the criteria and 0 if not. For example, if the coffee has a single origin, the single-origin cell had a value of 1; if not, it was 0.

After rearranging the data in the excel file, we ran the data through the software STATA using the regression formula. STATA is a statistical software used to analyze different types of data.

### **3.1.2 Qualitative Study:**

This thesis aims to understand the impact of the sustainable trend on the Swiss Romande coffee market. To understand the market demand side, we conducted a survey to understand the Swiss Romande consumer behavior toward sustainable coffee.

The goals of the study are as follow:

- To understand the basic knowledge of the targeted population toward coffee labels and sustainable coffee.
- Examine the labels bought by Swiss Romand consumers and the reasons behind their choice.
- Defining the demographic variables of the consumers not purchasing sustainable coffee.
- Examine their spending habits for coffee and spot the most-bought brands, analyze these brands, and see if they are sustainable or not.

To understand the demand in the Swiss Romande market, we had to choose the study method to have a social representation of the population. To have a high representation of the Swiss Romande population, we have decided to conduct an online survey of a diversified group of people. The survey will help us learn more about the target audience and their consumption habits toward coffee.

The survey was launched on Google Forms. This platform has been chosen to keep the information of the participants private. The survey has been distributed using several channels. The main one was social media (LinkedIn, Facebook, WhatsApp). The link has also been shared through 300 emails from a Swiss Romande database to have various categories of Swiss Romande participants.

Due to the COVID-19 restrictions, the survey was run online. It was also run online to make it possible to collect a large number of answers from different regions in the Swiss Romande.

The study aims to learn more about the Swiss Romande consumption behavior toward coffee in general and not only sustainable coffee. The goal of presenting the survey is to have all types of coffee consumers answering the survey and not only the ones drinking sustainable coffee in order to reduce the bias in the answers.

The survey is composed of different multiple-choice questions and some open-ended questions. Overall, it is composed of 5 parts.

**Part 1:** is composed of 4 questions. The first is the choice of language, followed by the participant's place of residence, then if the participant buys and drinks coffee or not. Suppose the participant does not live in the Swiss Romande region or doesn't purchase nor consume coffee. The participant is directly sent to the last page of the survey thanking him for the participation. Thus, his answer is not considered since the study is focused only on the people living in the Swiss Romande region.

**Part 2:** comprises questions studying the consumer behavior toward coffee in general. For instance where they buy coffee, which brands and their decision-making process. This part was developed to make the consumer think that the study is about coffee consumption and compare the results of the brands and stores with the data collected for the Hedonic research above.

**Part 3:** is composed of questions that aim to investigate the participants' knowledge and consumption habits toward labeled coffee. This part can be used to explain and define the reasons behind their choice.

**Part 4:** is conceived to study consumer spending habits and how they perceive sustainable coffee on the market. This part aims to analyze if consumers' perception matches the market and the data collected for the hedonic study.

**Part 5:** is the last part of the survey. It is conceived to assess the demographic group of the participant. This part would be available in the appendix.

The survey was conceived concisely. It is composed of multiple questions and only two open questions which are not mandatory. It was realized this way to encourage maximum participation from the consumers.

The results of the survey were downloaded on an excel-sheet and presented with graphics on Google form. To make them more readable and easier to understand, we will use graphic representations alongside commentaries on reading and understanding the information. Since the survey was conducted in two languages, French and English, and the language is not a criterion in our study, the following graphics and representation will blend the two surveys' answers. In addition, the representation of the results is going to be divided into the five parts mentioned before.

### **3.1.3 Qualitative Study: Description Of The Consumer Profile Buying Fairtrade Label And Eco-Friendly Label:**

This study aims to answer the question "Who buys eco-friendly labels and who buys Fairtrade labels."

To answer this question, we will define which demographic variables impact consumer behavior toward certain types of labels. The goal is to define a profile that will buy a specific type of label over the other one. We will use the data collected in the qualitative study and turn it into quantitative data.

The focus is going to be on the question, "*what label do you buy?*". The answers to this question defined for each participant if the label bought is fairtrade or/and eco-friendly. In an excel sheet, we have created two columns, fairtrade and eco-friendly. If the participant buys a fairtrade label or an eco-friendly label, the cell takes the value of one in these columns. If not, it takes the value of 0. For the participants that buy both types of labels, both cells take the value of one.

We then created the demographic variables that influence the participant choice of buying these types of labels. The first variable is gender. This information helps understand if gender affects the purchase behavior toward a specific label. The dedicated data column took the value of 1 if the participant is a female and 0 if it is a

male. The one value was given to females due to the significant participation of females compared to the male gender.

The second variable is age. The cells took a value from 1 to 4. The youngest age group (18-29 years old) took the value of 1 and the most senior age group (+65 years old) took 5. The participants younger than 18 were not considered since their participation number was 0.

The third variable is the frequency of coffee consumption. The cells took the value from 1 to 6. We ranked the tendency of consumption from the least frequent (Few times per year) and gave it the value of 1 to the most frequent value (Twice or more per day), and the cell value took 6.

The fourth variable is the coffee spending per month. The cells took the value from 1 to 4, starting from the lowest spent amount per month (less than 10CHF) to the largest one (more than 50CHF).

The fifth variable is the education level. The cells took the value from 1 to 4. The least educated the participant is, the smallest the value is going to be. The upper secondary education took the value of 1, and the Ph.D. education level took 4.

The sixth and last variable is the income level. The cells took values from 1 to 5. The least the participant is earning per month, the smallest is going to be the value. The participants earning less than 30 000 CHF per year, their cell value will take the value of 1. On the other hand, the participants earning more than 120 000 CHF their cell value will take 5. The participants that chose to answer this question have their cell value empty.

After creating the file in excel, we ran the file in STATA, using the following formula:

```
"Logit Ecofriendlybought Frequencyofcoffeeconsumption Spendingoncoffee Gender Age Education Income"
```

```
"Logit Fairtradebought Frequencyofcoffeeconsumption Spendingoncoffee Gender Age Education Income"
```

These two formulas would then give us the probability of each variable to impact the purchasing behavior.

## 3.2 Hedonic Study:

### 3.2.1 Presentation And Analysis Of The Results:

To define the impact of every variable chosen in our methodology, we constructed the following equation:

*Equation: Hypothesis of coffee price.*

$$\text{Log Cooffee price} = \alpha\text{Size}_i + \beta\text{Strongness}_i + \delta\text{Fairtrade}_i + \varepsilon\text{Ecofriendly}_i + \theta\text{Single origin}_i + \vartheta\text{Store}_i + \mu\text{Brand}_i + \rho\text{Type of coffee bean}_i + \tau\text{type of grind}_i.$$

For the easiness of interpretation, we used the log coffee price. A log change on the price will give us a percentage change instead of a unit change of the variables on the price.

The store variable has been omitted since the selected stores were not offering a similar type of coffee, otherwise, the results would not have matched the reality.

The resulting equation is as follows:

*Equation 1: Updated coffee price equation*

$$\text{Log Cooffee price} = \alpha\text{Size}_i + \beta\text{Strongness}_i + \delta\text{Fairtrade}_i + \varepsilon\text{Ecofriendly}_i + \theta\text{Single origin}_i + \mu\text{Brand}_i + \rho\text{Type of coffee bean}_i + \tau\text{type of grind}_i.$$

This new equation has been regressed through STATA. The board below is a simplification of the STATA results that are available in appendix number 2.

To facilitate the reading, the results with \*\*\* have a 1% or less margin of error, \*\* have a 5% or less margin of error, and \* have a 10% or less margin of error.

*Table 1: Results of the multiple coffee regression*

	<b>Coefficient</b>	<b>Standard deviation</b>	<b>P&gt;  t </b>
<b>Size***</b>	0.0009874	0.0001569	0.0000
<b>Strongness</b>	-0.2542	0.2088	0.229
<b>Fairtrade</b>	-0.1714	0.0816	0.834
<b>Eco-friendly*</b>	0.1571	0.07996	0.052

<b>Single origin</b>	-0.4295	0.08596	0.618
<b>Instant coffee</b>	0.2164	0.1751	0.219
<b>Capsule</b>	0.10389	0.0979	0.2913
<b>Ground coffee***</b>	-0.2204	0.0823456	0.008
<b>Arabica and Robusta</b>	0.0507	0.0664	0.447
<b>Robusta</b>	-0.1763455	0.13899	0.207
<b>Brands</b>	-----	-----	-----
<b>R<sup>2</sup></b>	<b>Number of observations</b>	<b>F-test</b>	
<b>0.8276</b>	181	11.50	

The dependent variable chosen is log price, and we have 11 independent variables, with a total of up to 181 observations.

R<sup>2</sup> is equal to 82.76%, which means that our explanatory variables explain 82.76% of the log price variation.

Our F-test rejects the null hypothesis where all our coefficients are equal to 0.

### 3.2.1.1 Size:

Size has a coefficient of 0.0009874\*\*\*, which means adding one more gram to the coffee will make the price higher by 0.09874%\*\*\*. Meaning that the heavier the coffee, the more expensive it will be. This does not contradict the logic behind economics. The more the consumer buys a larger quantity of a product, the more he/she will pay for it.

### 3.2.1.2 Strongness:

The strongness has a negative coefficient of -0.2542. However, the coefficient is not significantly more than 0 with a 10% confidence level. Hence, we cannot accept these

results. The strongness of the coffee has no impact on the final price of coffee for this sample.

#### **3.2.1.3 Eco-friendly and fairtrade label:**

The coefficient of the eco-friendly is 0.1571\*, which means that the price of eco-friendly labeled coffee is 15.71% higher than conventional coffee. On the other hand, the coefficient of Fairtrade is not significantly important than 0 with a 10% confidence level. Thus, Fairtrade labels do not impact the final price of coffee.

We ran the correlation between coffee labeled eco-friendly and the one labeled fairtrade. We found a correlation of 63.24%. That means if coffee has one of the two labels, it has a 63.24% chance to have the other one. This can explain why one label does impact the price and not the other one.

#### **3.2.1.4 Single-origin:**

The coefficient is not significantly more than 0 with a 10% confidence level. Therefore, we can conclude that if the coffee is from a single origin, it will not impact the final price of the coffee.

#### **3.2.1.5 Type of coffee bean:**

The type of coffee bean has three explanatory variables, Arabica, Arabica, and Robusta with Robusta.

All the coffees selected have only one of the explanatory variables, which means that each variable is dependent. The total correlation between the sub-variables will be equal to 1, resulting in linear regression.

To regress the model correctly, we have chosen to regress it based on the Arabica beans comparison. The goal is to see if the other beans are more or less expensive compared to the Arabica beans.

Both the coefficient of Arabica and Robusta and the coefficient of Robusta are not significantly important more than 0 with a 10% confidence level. We can conclude from our sample that the type of beans does not impact the final price of coffee.

#### **3.2.1.6 Type of grind:**

The type of grind has four explanatory variables. The explanatory variables are grounded coffee (café Moulé), grains, capsules, or instant coffee.

Considering that the coffee selected can be only under one type of grinding mentioned before, the sub-variables are dependent. There is a total correlation between the type of grindings. To regress the grinding, we choose the grains as the primary variable and observe if the other variables are more or less expensive compared to the grains.

Instant coffee and Capsules do not have a coefficient more significant than 0 with a 10% confidence level. We can say that these two variables do not impact the price compared to the grains.

Ground coffee is 22.04%\*\*\* less expensive than coffee grains. The margin error of these results is less than 1%. This shows a fundamental difference between the price of grains and ground coffee.

Hence, we can say that the type of grind can impact the final price of coffee in the Swiss Romande market.

### 3.2.1.7 Brands:

To make the results for the brand easy to read, we only refer to the outcomes with a margin error inferior to 10%.

Table 2: Results of the branding multiple regressions

	<b>Coefficient</b>	<b>Standard deviation</b>	<b>P&gt;  t </b>
Minges*	-0.7735	0.3962	0.053
Bellarom*	-0.4582	0.2690	0.091
Nescafé Gold**	0.6828	0.3217	0.036
Dolce Gusto*	0.4915	0.2941	0.097
Delizio***	1.2417	0.3022	0.000
La semeuse**	0.6329	0.2727	0.022
Sapori*	0.6592	0.3652	0.073
Maillardos**	0.7708	0.3382	0.024

Henauer**	0.7074	0.2837	0.014
El imposible Roster***	0.9823	0.32	0.003
Rastkafee**	0.675	0.3353	0.046
Amici***	1.5937	0.3157	0.000

In our data set, we can notice that depending on the brand, the price will change. The branding itself impacts the price. In the selected results with a margin error less than 10%, we can identify the brand that affects the price the least. The end result shows that a coffee branded Minges will be 77.35% less expensive. On the other hand, Amici is the brand that impacts the price the most by making it is coffee 159% more expensive.

### 3.2.2 Key Findings Of The Hedonic Study:

*Equation 2: Final coffee price equation*

$$\text{Log Coffee price} = 0.0009874\text{Size}_i + 0.1571\text{Ecofriendly}_i + \mu\text{Brand}_i + \tau \text{ type of grind}_i$$

The explanatory variables define the brand and type of grind variables in the tables above.

From the coefficients, we can notice that what impacts the price of coffee the most is the brand, how it positions itself on the market regardless of all the other variables. This follows the consumer behavior's logic. A known brand with history and a large selection will have more power over the price than one with less notoriety.

Besides the brand, the size also impacts the price; buying a larger quantity of coffee will cost more. For every 100-gram added to the size, the price will be 0.09874%\*\*\* higher.

If we talk about the Fair-trade label impact over the price, as said before, the standard error and the p-value are high enough to reject the coefficient. We cannot reject the null hypothesis stating the fairtrade label does not impact the price with these results. Thus, we conclude that the fairtrade label does not impact the final price of coffee on the Swiss Romande market.

On the other hand, the eco-friendly label impacts the price by 15.71%, with a margin of error smaller than 6%. These results push us to reject the null hypothesis and say that the eco-friendly label affects the price of coffee on the Swiss Romande market. Therefore, we can conclude that the eco-friendly indeed impacts the price.

The fairtrade and eco-friendly labels are heavily correlated. This means the chances of having both labels on a coffee product available on the Swiss Romande market are more prominent than 60%. This can push consumers to buy a label if they are interested only in one of the two. Since the label that impacts the price is the eco-friendly, we can assume that the fairtrade label is pushed with the eco-friendly label and not otherwise.

The strongness and single origin of the coffee and the type of beans do not impact the price of coffee. Both variables have a high p-value. These results helped not to reject the null hypothesis. Hence, we can conclude that these variables do not impact the final price of coffee in the Swiss Romande market.

The grinding also affects the final coffee price. Since the data showed that ground coffee is less expensive than grains, this follows a production logic. The machine used for the packaging and the roasting all impact the product's final price. That is why one type of grinding might be more expensive than the other one.

### **3.2.3 Conclusion for the hedonic study:**

The Swiss Romande market offers an extensive range of coffee. These coffees have different characteristics. Some impact the price, and others do not. The purpose of this research is to see if the eco-friendly label and fairtrade label impact the price of coffee. We can conclude that the eco-friendly label does affect the price and that the fairtrade one does not. The eco-friendly coffee would be 15.71%\* more expensive than conventional coffee. This coefficient is significant and can be noticed by consumers. Also, there is a high correlation between the two types of labels. The correlation can be interpreted as one of the labels being pushed on the consumers with the other one. Since the one truly impacting the price is the eco-friendly label, we can think that the consumers care more about this label and are willing to pay more for it. We can also assume that the label pushed on the consumers through the other one is fairtrade.

Nevertheless, the most significant variable that impacts the price is the brand. We could notice that some brands lower the price a lot or make it higher. This is because the brands try to position themselves on the market. The brand that impacts the price the most is Amici, with an impact of 159% over the final price, ten times higher than the eco-

friendly label. The eco-friendly label indeed impacts the price, but it is not what makes the coffee truly expensive. The branding hugely affects the coffee price than the other attributes.

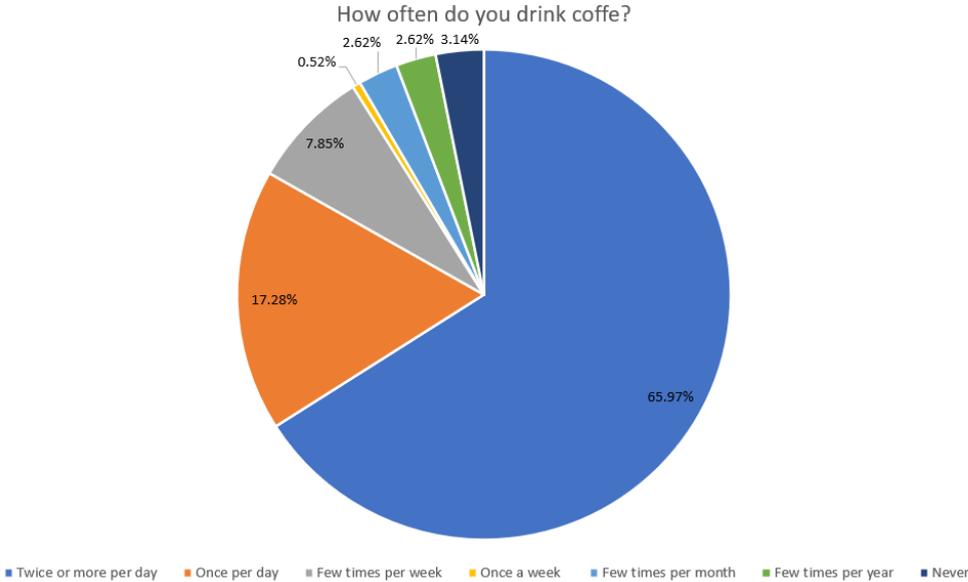
### 3.3 Presentation of the qualitative study results:

#### 3.3.1 Analysis of the first part:

The four first questions aimed to select the participants legible to answer our survey.

These questions are available in the appendix.

Figure 1: The coffee drinking frequency



This question was set up for two objectives: the first to assess how much coffee the people from Swiss Romande drink. The second objective was to define the people who do not meet the requirements to continue the survey.

Of the 191 participants, 121 participants drink two coffee or more, which means that 65.97% of the examined participants are heavy coffee drinkers. This can also be related to what has been found in the literature review above.

Thirty-three participants are daily coffee drinkers. That means 83.25% of the participants drink coffee at least once per day.

Only, 8.38% of the participants drink coffee weekly, 2.64% do it annually, and 3.14% never drink coffee.

The 6 participants who do not drink coffee do not meet the criteria to continue the survey.

Of the 224 participants, 185 participants meet the criteria to complete the survey. The 39 participants that do not meet the requirements of living in the Swiss Romande, or being coffee consumers or buyers, have been directly sent to the end of the survey. Thus, their results do not count over the following part of the analysis.

The last demographic study for the Swiss Romande state that the Swiss Romande region has 2 061 295 residents (Office Fédéral de la Statistique, 2020). The number of observations considered is 185. To calculate the margin of error, we will use the following formula:

*Equation 3: The finite population equation*

$$\text{Finite population: } n' = \frac{n}{1 + \frac{z^2 \times \hat{p}(1-\hat{p})}{\epsilon^2 N}}$$

Where: Z is the confidence level,  $\epsilon$  is the margin error, N is the population size, and  $\hat{p}$  is the population proportion.

If we take the confidence level of 95% for the Swiss Romande population and the number of participants for our survey, the margin of error is 7.06%. This level of margin error is low. Thus, our results are accepted statistically.

### **3.3.2 Description of the demographic representation:**

The full description of the demographic participants is available in the appendix. This has been done to facilitate and shorten the reading of the results.

### **3.3.3 Analysis of part 2, Swiss Romande Consumer behavior toward coffee:**

#### **3.3.3.1 The coffee perception:**

The first question of this part is: “*What comes to your mind when you hear the word coffee?*”

To analyze this question, we translated all the French answers to English, and we made a list of all the terms to lemmatize them. Then, we semantically categorized them to compute the frequency through a frequency table.

First, let us explain fast the lemmatization process and the semantic categorization process.

The lemmatization process starts with an analysis of the word usage of the respondents. The given answers are then resolved to their respective dictionary. This pre-processing step allows the condensing of related terms and thus reduces variability.

The semantic categorization process is creating categories that share a semantic feature. The semantic feature is a component of the concept associated with a lexical item.

For this part, we used an open question which was made optional on the survey to help keep the level of participation high. For the French part, 107 participants chose to answer with a total of 125 words. For the English part, 17 participants chose to respond. The French wording has been translated to English to facilitate the lemmatization.

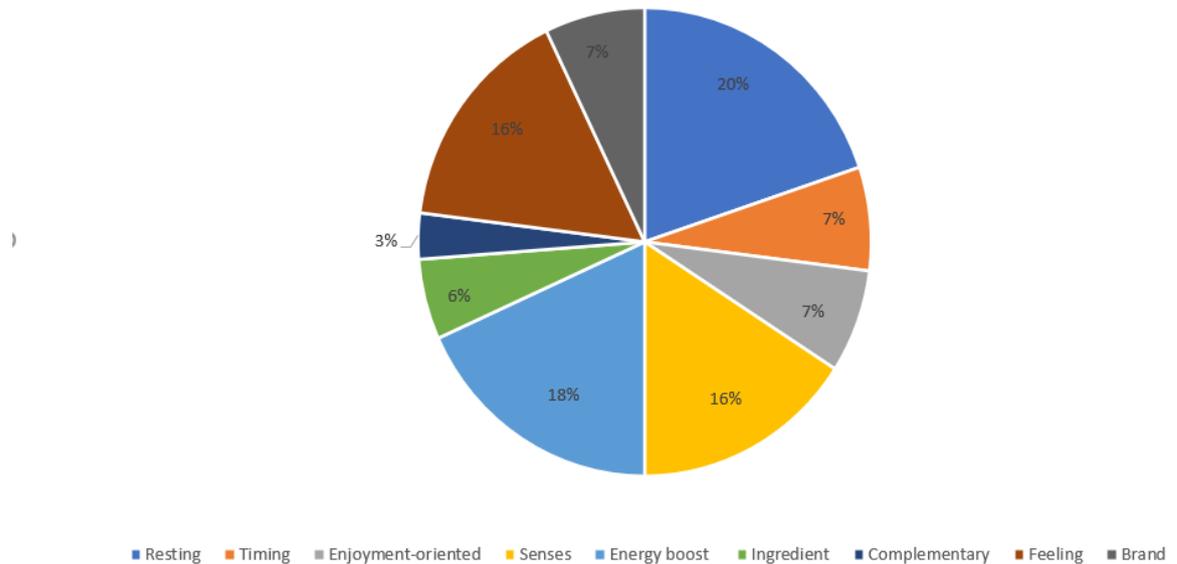
For the categories, we have decided to choose nine categories that fit the results well. The different categories are as follow:

- **Resting:** This category represents the feeling of taking a break or rest at a specific moment of the day.
- **Timing:** This category represents an association of the word coffee with a particular moment of the day—for example, Morning.
- **Enjoyment-oriented:** This category means associating the word coffee with activities. For example, outdoor activity.
- **Senses:** This category represents associating coffee with senses—for example, the smell or the taste that coffee brings.
- **Energy-boost:** This category describes the Association of coffee with energy.
- **Ingredient:** This category represents the Association of coffee with a component used to make coffee. For example, coffee beans.
- **Complementary:** This category describes the objects that the consumer thinks go with coffee. For example, cigarettes or chocolate.
- **Feeling:** This category represents an association of coffee with a particular type of feeling—for example, the feeling of sympathy, warmth.
- **Brand:** The category represents an association of coffee with a specific brand name—for example, Nespresso.

After categorizing the answers, the following pie chart has been created:

Figure 2: Semantic categories results

The semantic categories finding



20% of the participant when they hear the word coffee, they think about resting situations. Coffee can be seen and comes as a moment of relief for them. 18% of the participants associate coffee with an energy boost, as they perceive coffee as an energy source. 16% of the participant think about a sensation they have when consuming coffee. Such sensations are triggered by the smell, the taste... 16% of the participants associate the word coffee with a feeling of comfort and warmth.

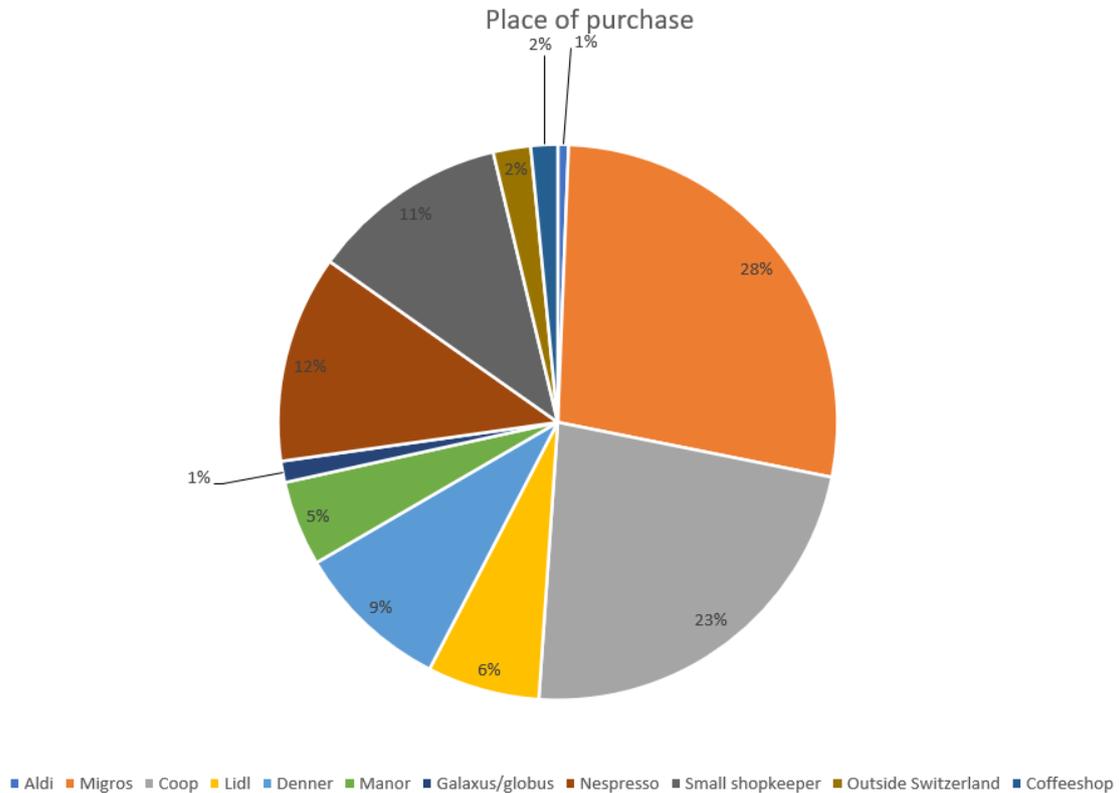
Of all the participants, 7% affiliate the word coffee to a brand name. The other 7% of the participants associate it with a specific time of the day. The additional 7% relate it with enjoyment-oriented activities, like taking a coffee with a friend, going out for a coffee. 6% of the participants associated coffee with the ingredient or nutrition value of the coffee. The last 3% of the participants relate it with complementary ailments, such as having a bar of chocolate with it or a cigarette.

None of the participants thought about sustainability or the negative impact of conventional coffee on the small coffee farmers' or the environment. Coffee is more associated with feelings, memories and marketing rather than durability.

### 3.3.3.2 The store of purchase:

The participants have been asked to choose the store where they buy coffee. For this part, we used a multiple-choice question, with the possibility to add an answer if none of the available choices were convenient.

Figure 3: Place of the coffee purchase



We can notice that 28% of the participant buy their coffee from Migros and 23% from the Coop. This means that 51% of the coffee bought on the Swiss Romande is sold through these two supermarkets. At the same time, Migros alone has 617 stores in Switzerland. Additionally, Migros own Denner represents 9% of the coffee sold. (Fédération des cooperatives Migros, 2019). Overall, Migros alone represents 32% of where the participants buy their coffee.

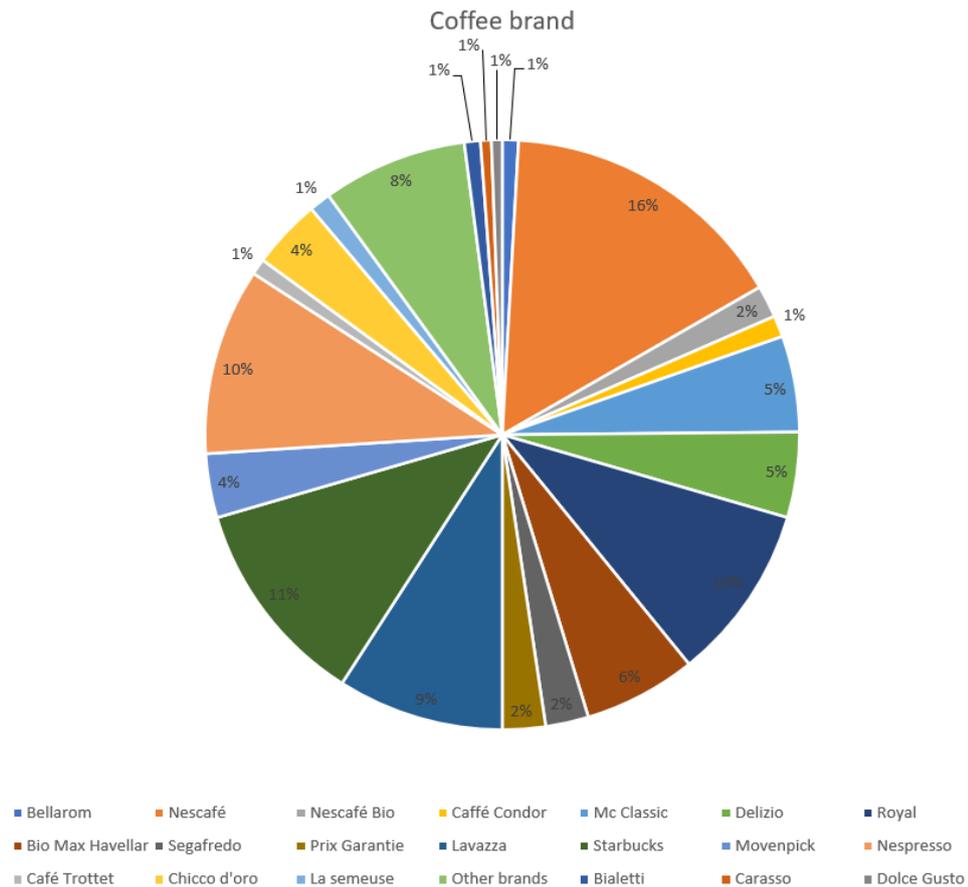
12% of the participants buy their coffee in Nespresso, either through online or physical stores, while 11% buy their coffee from small shopkeepers. 6% purchase their coffee in Lidl. 5% in Manor, 2% in coffee shops like Starbucks and 1% in both Aldi and Glaxus.

If we compare these answers with the database generated for the hedonic study, at least 72% of the stores where the participants buy their coffee offer Fairtrade and/or eco-friendly as well as unlabelled products. Therefore, the choice to purchase sustainable resides in the consumers' hands.

### 3.3.3.3 The coffee brand:

The participants have been asked to answer the brand of coffee they buy. A multiple-choice question was also used for this sequence, with the possibility to add an answer if none of the mentioned options apply.

Figure 4: The most coffee brands purchased.



The participants have a vast selection of brand choices while shopping for coffee. For this part, we will analyze only the brands that are bought by more than 10% of the participants. The comparison of labels and certification is made based on the data collected for the Hedonic study alone.

The most bought brand by our participants is Nescafé, which was picked 16% of our sample. The participant could select between Nescafé and Nescafé Bio in the selection process, but only 2% chose the Nescafé Bio. The most bought brand Nescafé does not have any label nor certification to be eco-friendly nor fairtrade. The same brand offers the coffee with the certifications and labels, but it is called Nescafé Bio.

The second most bought brand is Starbucks. 11% of the participant choose Starbucks as a coffee brand. On their packaging, Starbucks coffee does not have any certification.

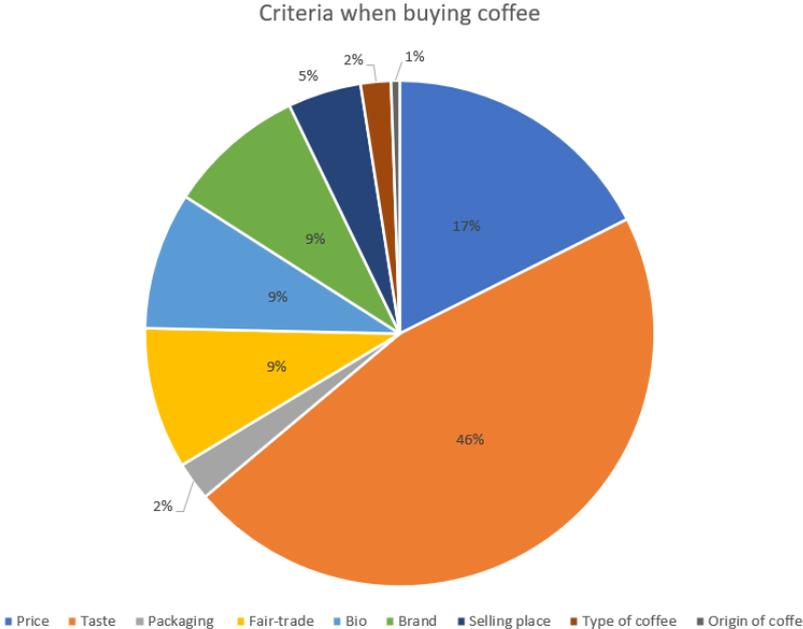
They have developed their sourcing label on the Starbucks website called Coffee and Farmer Equity (C.A.F.E). This certification is based on making the supplier transparent over the supply chain, empowering small-scale farmers' organizations, and having organic coffee. (Starbuck, 2021).

The third most-bought brands are Nespresso and Royal. Each is purchased by 10% of our participants. Based on the data collected, the brand Café Royal has both labels, Eco-friendly and Fairtrade. On the other hand, Nespresso does not have any Eco-friendly label, but it is certified Fair-trade by Rainforest.

**3.3.3.4 Most important criteria when buying coffee:**

The participants have been asked to choose the three most essential criteria when buying coffee. This question was a multiple-choice question with the possibility to add an answer if it was not available among the options.

Figure 5: Criteria for selecting coffee.



The most important criteria for selecting coffee for the participant is the taste of the coffee. Taste by far the most essential criteria since 46% of the participants voted for it. Since coffee is a drink and each coffee brand and type has its unique flavor, depending on the type and origin of the bean, the grinding, the roasting, and other factors, the taste seems the most logical criteria.

The second criterion is price. 17% of the participant are price-sensitive while purchasing coffee. As we have found in the collected data for the hedonic study, the price can variate

a lot depending on many aspects and variables. Thus, we can say that 17% of the participants will base their choice on the price range of the coffee.

Brand, Bio, and Fair-trade come as the 3<sup>rd</sup> selection criteria by 9% each.

Only 9% chose Bio and Fair-trade as criteria for buying coffee. This can be interpreted as the following. First, the lack of knowledge and awareness about sustainable coffee and the importance of these labels from an environment and social view. The second interpretation can be related to a lack of interest in these issues, even if they know about them.

The brand does not impact much the participants purchasing habits when buying coffee. Nevertheless, if we compare this with the outcomes of the hedonic study, the results are a bit contradictory since the brand is the variable that affects the price the most. However, we can assume that the taste of coffee is automatically associated with a brand. Thus, these brands can exercise a higher price compared to others.

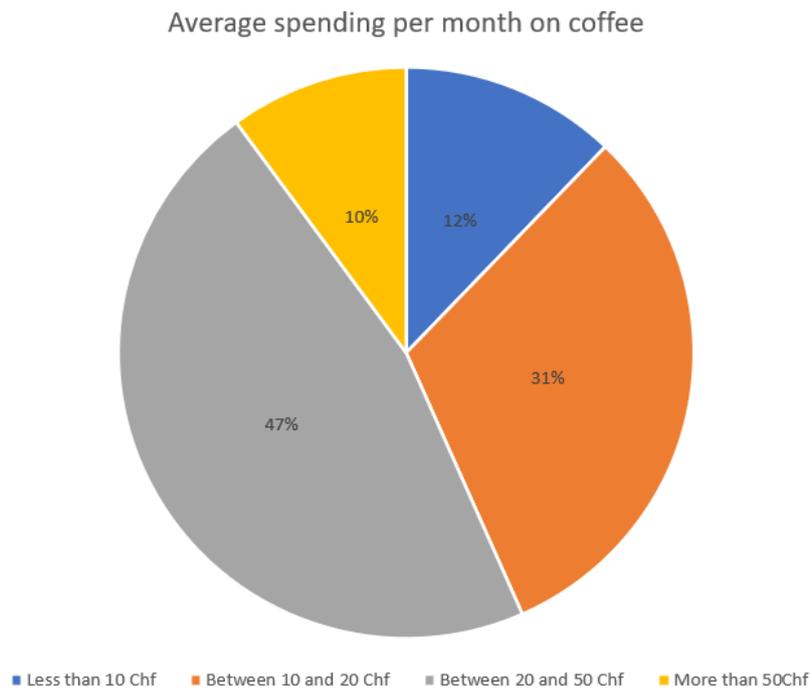
The selling stores impact the choice only for 5% of the participants when buying coffee. This can be interpreted because consumers buy their coffee while doing groceries in their shop of choice, and coffee is not a good enough reason to choose another store to shop. Also, it can be interpreted by the fact that shops have a large selection of coffee, and a lot of brands can be available in multiple different stores.

The type of coffee and the origins were the least picked criteria for the participants, as they were respectively of interest to only 2% and 1% of our sample.

### **3.3.3.5 *Spending habits on coffee:***

The participants were asked about their monthly coffee spending. The question was a multiple-choice question with the possibility to answer only one question. The options presented different ranges of spendings per month.

Figure 6: Spending on coffee per month



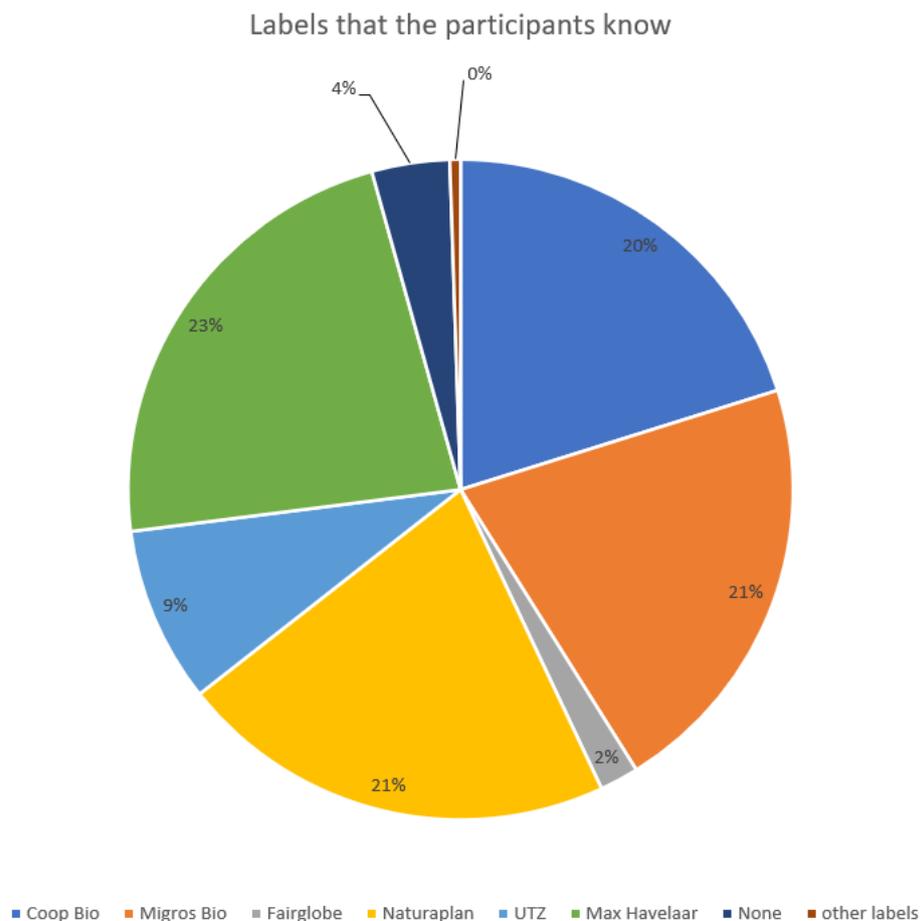
Almost half of the participants spend between 20 and 50CHF per month on coffee. This shows a consequent spending habit on coffee that matches the heavy coffee consumption habits. Followed by 31% spending between 10 and 20CHF. Finally, 12% of the participants spend less than 10CHF per month and 10% allocates a budget amounting to more than 50CHF per month on coffee. These numbers show a high level of consumption and spending habits for coffee.

### 3.3.4 Analysis Of The Third Part, The Participants' Knowledge, And Habits Of Consumptions Toward Coffee With Labels:

#### 3.3.4.1 The labels and certifications the participants know:

The participants had to choose the labels and certifications of coffee that they know. The selection was based on their choices of different label pictures. The participants had the option of adding another coffee label if it was not available among the options, but also had the possibility of choosing none.

Figure 7: The most known labels by the participants.



The most known label of coffee to the participant is Max Havelaar as it was picked by 23%. Max Havelaar is a Suisse label created by the foundation Max Havelaar in Switzerland that delivers the label of Fairtrade to the products that have been produced in fairtrade circumstances and with durables methods. (Max Havelaar; 2021)

The second most known labels are Naturaplan and Migros Bio, which were each picked by 21% of the participants. Naturaplan is a label created by Coop, the label state that the products are 100% bio that respects the environment. (Naturaplan, 2021)

Migros Bio label is a label that promises that all the products with that label are 100% Bio that respects the environment.

In fourth place, 20% of the participants have voted for Coop Bio, which is another label created by Coop. The difference between Naturaplan and CoopBio is the percentage of non-Suisse raw materials used to make the product. The logo changes depending on the portion of the Swiss, raw material in the product (CoopBio, 2021).

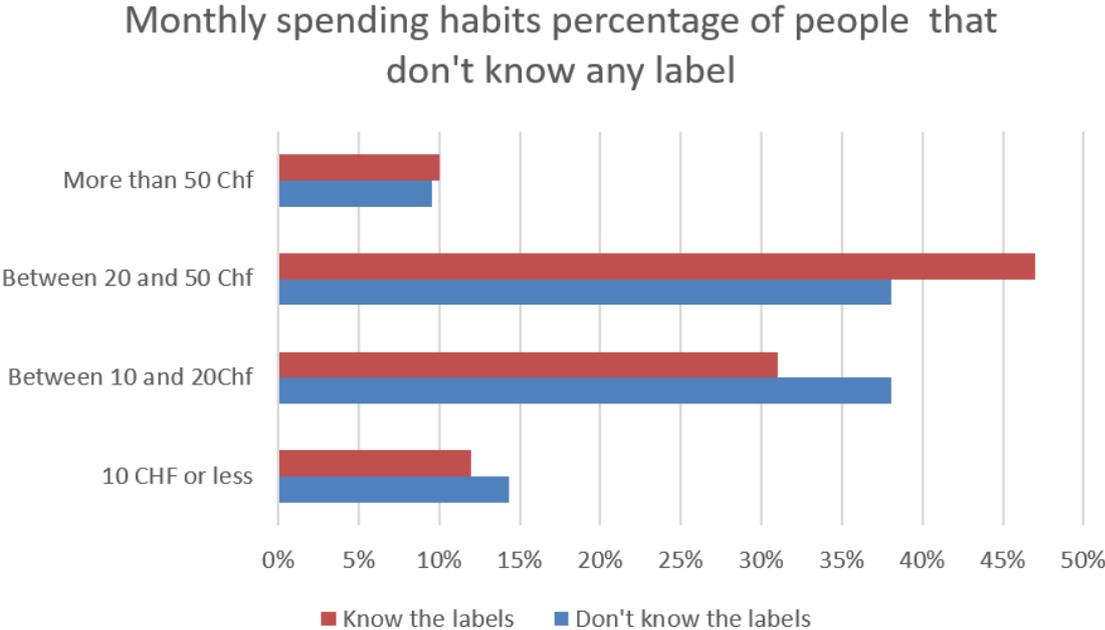
The four well-known labels by the participants are all Swiss-made. The international labels are not that notorious, even though there are multiple coffees in the Swiss market with international labels. Example U.T.Z. is known only by 9% of the participants, despite being created by the Rainforest Alliance for the benefit of sustainable agriculture, the environment as well the workers and their families (U.T.Z., 2021).

**3.3.5 Analysis Of The 4% Not Knowing About Any Coffee Label:**

Only 4% of the participants do not know any coffee labels in Switzerland. We decided to try and understand if there are factors involved such as gender, income and level of education, assuming it might explain the lack of knowledge of these participants. The percentage of the participants not knowing the label coffee will be compared to the participants knowing the labels. We found the following results:

**3.3.5.1 Spending habits impact on the coffee label knowledge:**

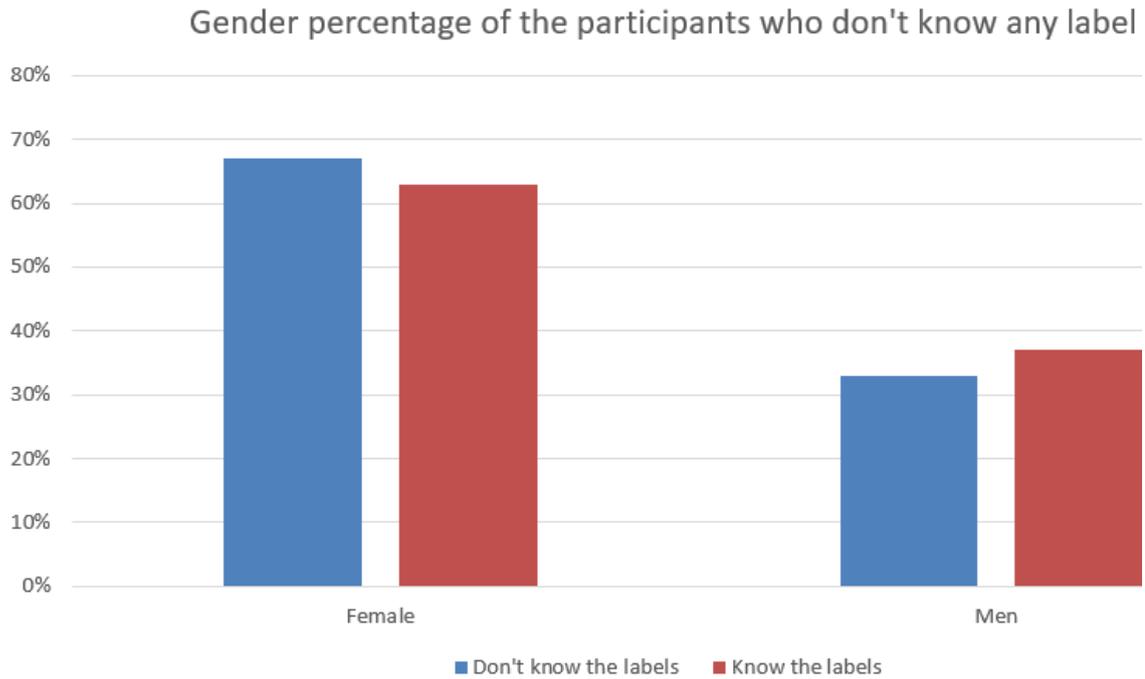
*Figure 8: Spending habits impact on coffee label knowledge.*



We can notice a slight difference between the spending habits of the participants who know and do not know any labels. The more someone spends on coffee, the more he knows more thus knows more about labels. This does not contradict logic. Therefore, we can say based on this graphic that spending habits might impact the knowledge about coffee labels.

### 3.3.5.2 Gender impact on the coffee label knowledge:

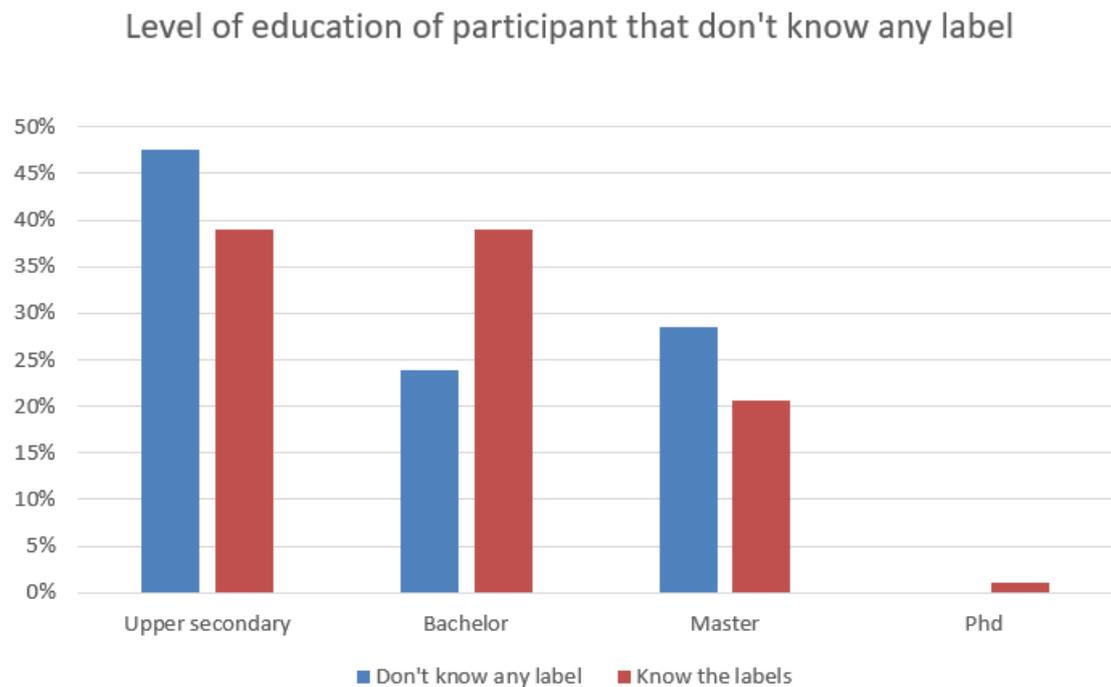
Figure 9: Gender impact on the coffee label knowledge



We can notice that gender influences a little the knowledge of the labels. The graphics show that women are less knowledgeable about coffee labels than men.

### 3.3.5.3 Age impact on the coffee label knowledge:

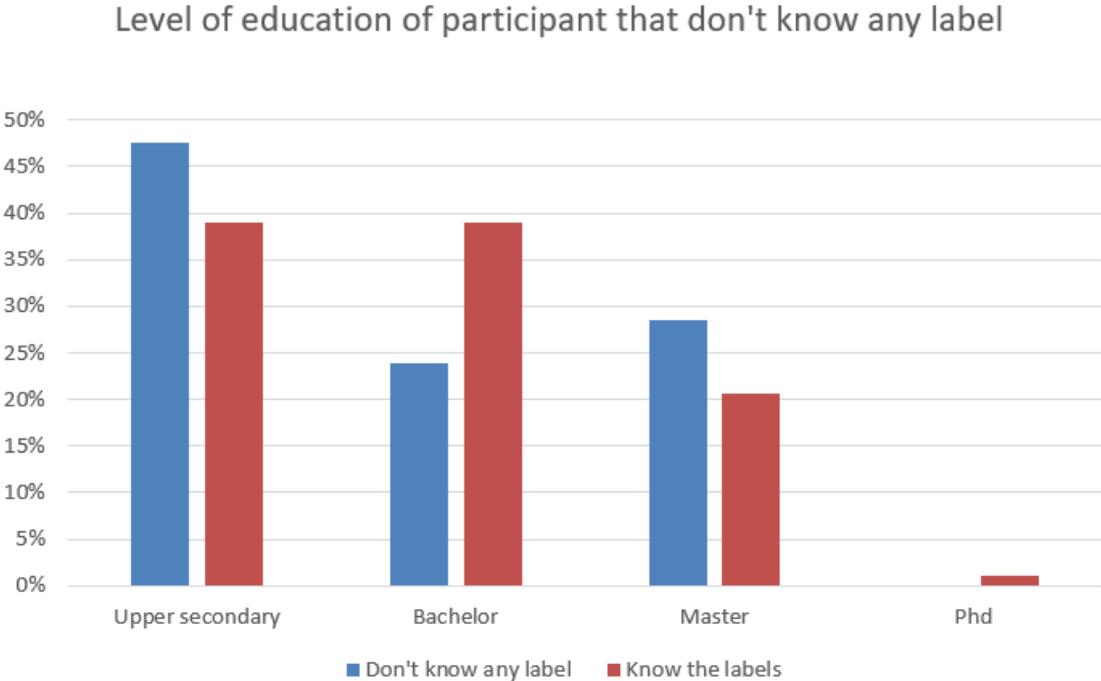
Figure 10: Age impact on the coffee label knowledge.



We can notice that the older the participants are, the less they know this label. We can see that the younger generation is more likely to know the labels, while the people older than 45 are unlikely to know more about the labels.

**3.3.5.4 Level of education impact on the coffee label knowledge:**

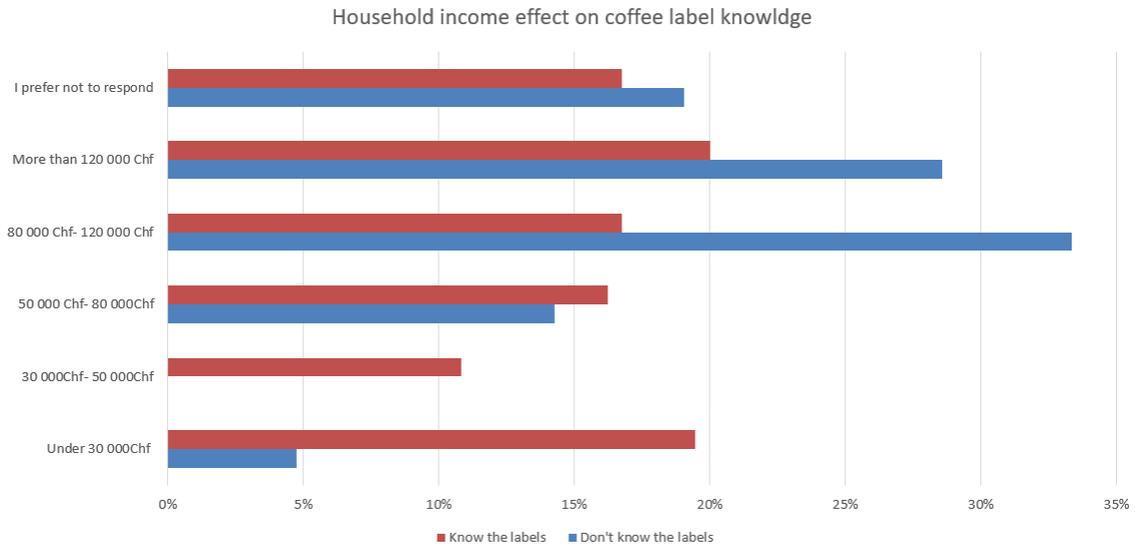
*Figure 11: Level of education effect on coffee label knowledge*



There is a slight correlation between the level of education and knowledge about the labels. The more the participants are advanced in their study, the more they will know about different coffee labels. This does not contradict the logic behind the awareness that higher education will impact students' knowledge.

### 3.3.5.5 Household income effect on the coffee label knowledge:

Figure 12: Household income effect on coffee label knowledge



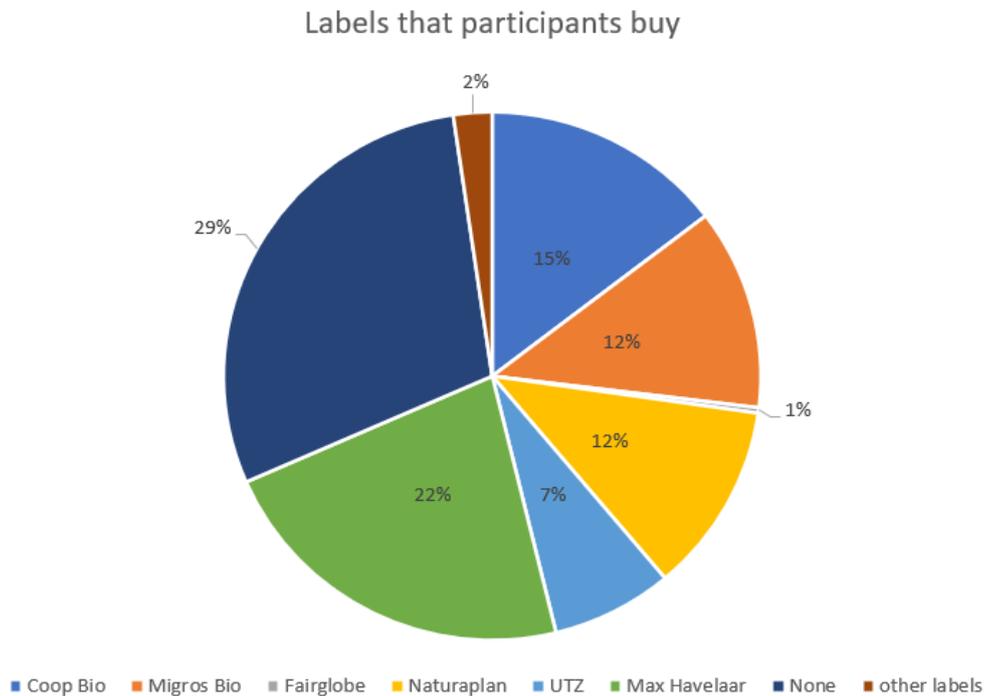
We can notice a clear negative correlation between household income and knowledge about labels. The higher is the household income, the fewer chances there are for the individuals to know about any coffee labels on the Swiss Romande market

As a small conclusion, we can say that age, level of education, spending habits, household income, and gender impact the participants' knowledge of coffee labels. Yet these results will be shown through a statistic analysis in point 3.4.1.

### 3.3.6 The Labels And Certifications The Participants Buy:

The participants had to choose the labels and certification of coffee that they buy. The selection was based on selecting different label pictures. The option of adding another coffee label if it was not in the section was possible.

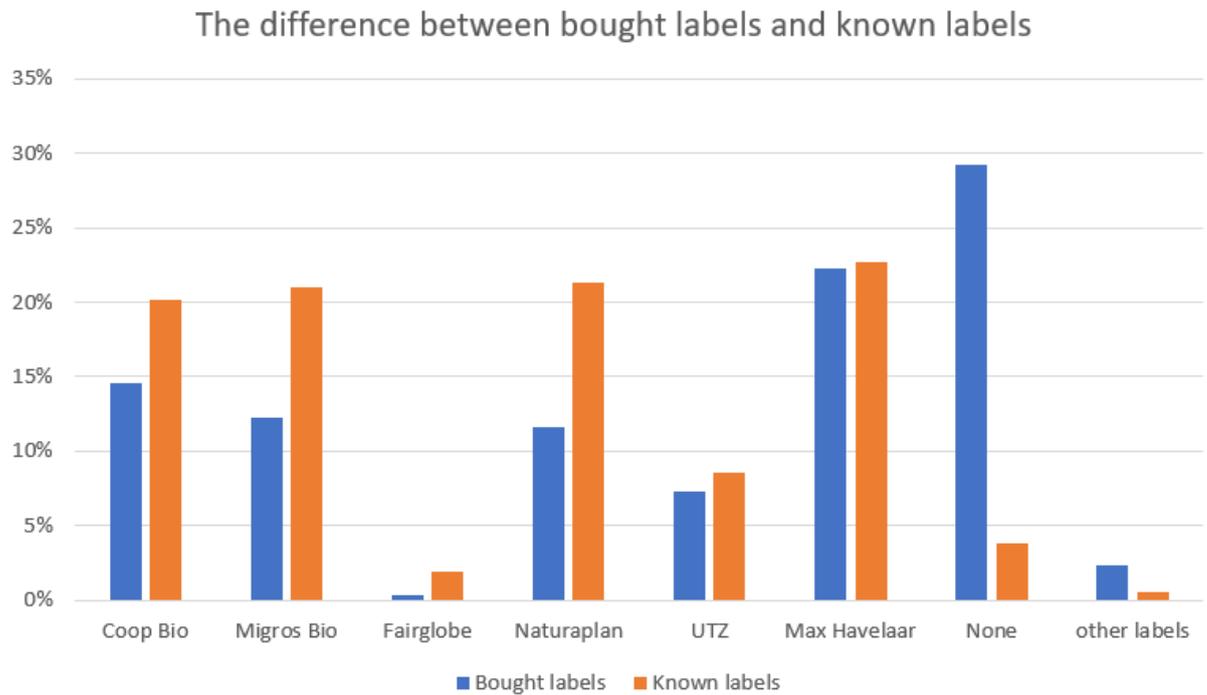
Figure 13: The most bought labels by the participants



A majority of 29% of the participants do not buy any coffee with labels, representing the most significant part of the participants. The most purchased label is Max Havelaar by 22%, followed by Coop Bio by 15%. Afterward, at the same position represented by 12% each, we can find Naturaplan and Migros Bio, then 7% for U.T.Z., 2% of small producer own label, and only 1% for Fairglobe.

### 3.3.6.1 Comparison between the knowledge of the labels and the labels bought.

Figure 14: The difference between the labels bought and known



We can notice a significant percentage drop on every label between participants knowing the specific label and buying that label. The most apparent change is between the 4% percentage of participants not knowing about any label and the 29% percentage of not purchasing any label. That shows that the purchase behavior toward labeled coffee is not mainly related to the lack of knowledge about these labels.

The two labels that seduce the participants and have the same rate of knowledge and purchase are Max Havelaar and U.T.Z. This shows that the participants that know about these two labels will effectively buy them. This proves the confidence of participants in the Max Havelaar label.

Naturaplan and Migros bio are the two labels that suffer the most between participants who know these two labels and participants buying them. These can be interpreted by a lack of trust or interest in these labels. Also, not trusting their impact on social and environmental issues.

### 3.3.7 Analysis Of The 29% Not Buying Labels:

29% of the participants do not buy any coffee with a label in Switzerland. We decided to understand if there is a tendency on the gender, income, level of education. That might

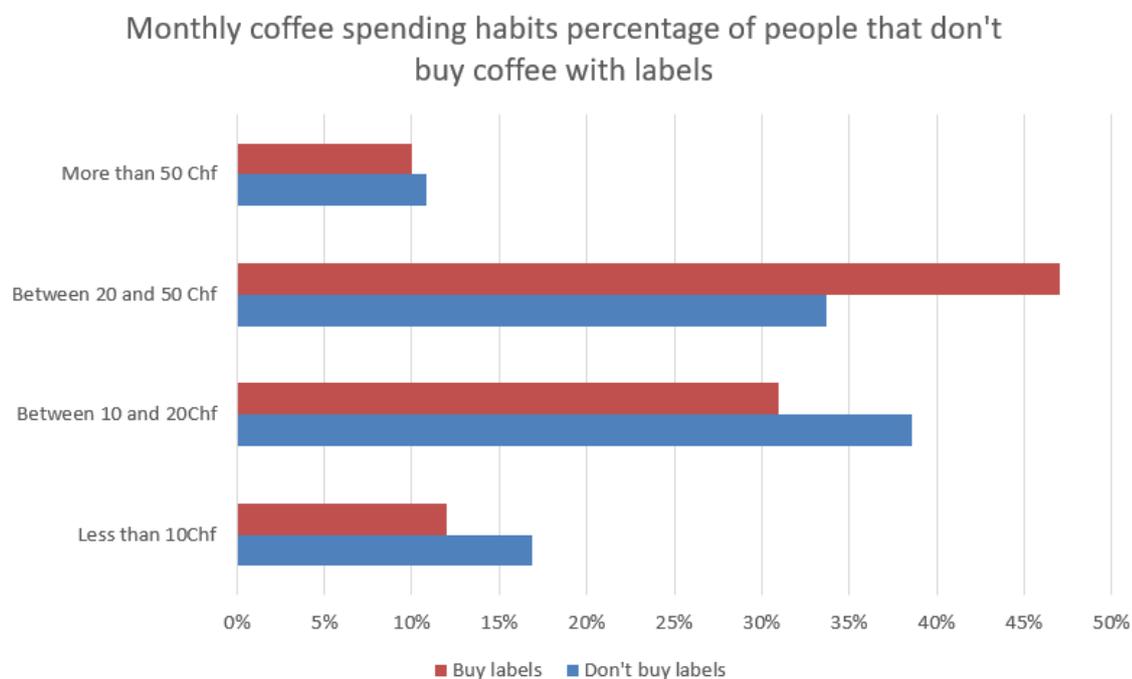
explain the lack of interest of this group of participants, and we found the following results:

### 3.3.7.1 Analysis of participants not buying labeled coffee:

For this part, we will analyze 29% of the participants who do not buy coffee. We decided to understand if there is a tendency on the gender, income, level of education. That might explain why these participants do not buy labeled coffee. The percentage of the participants which do not buy labeled coffee will be compared to the proportion purchasing labels.

### 3.3.7.2 Spending coffee habits impact on the coffee label purchase habits:

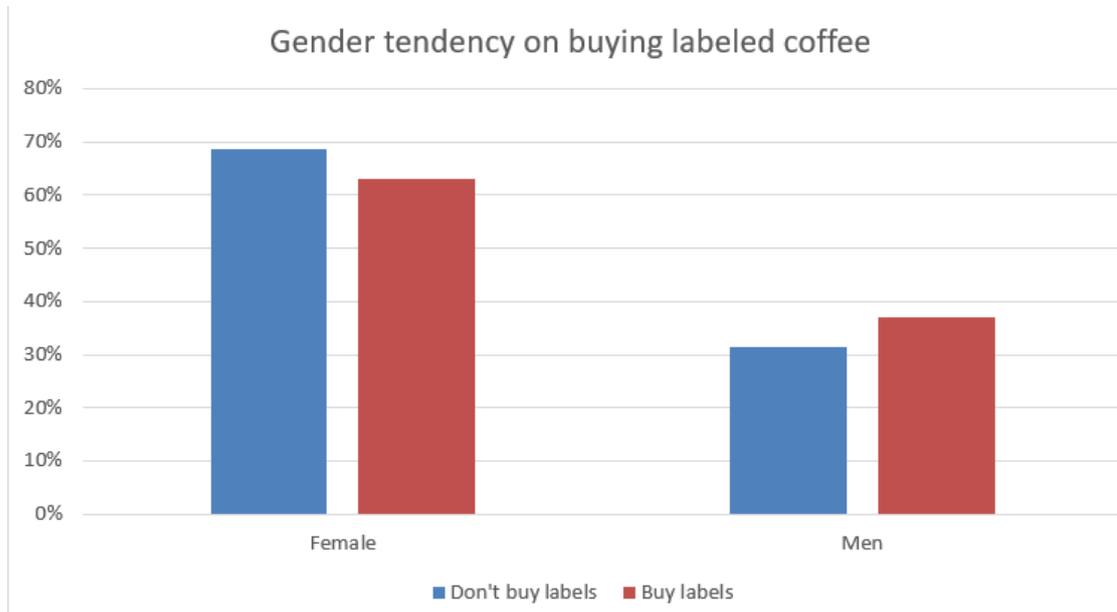
Figure 14: Spending coffee habits impact on the coffee label purchase behavior



Suppose we compare the participants' purchasing habits in terms of coffee labels and monthly spending habits. We would notice that the more the participant spent on coffee monthly, the more chances are that the participant will be buying a certified coffee. The spending habits on coffee are then correlated if consumers buy a coffee with a label.

### 3.3.7.3 Gender tendency on buying labeled coffee:

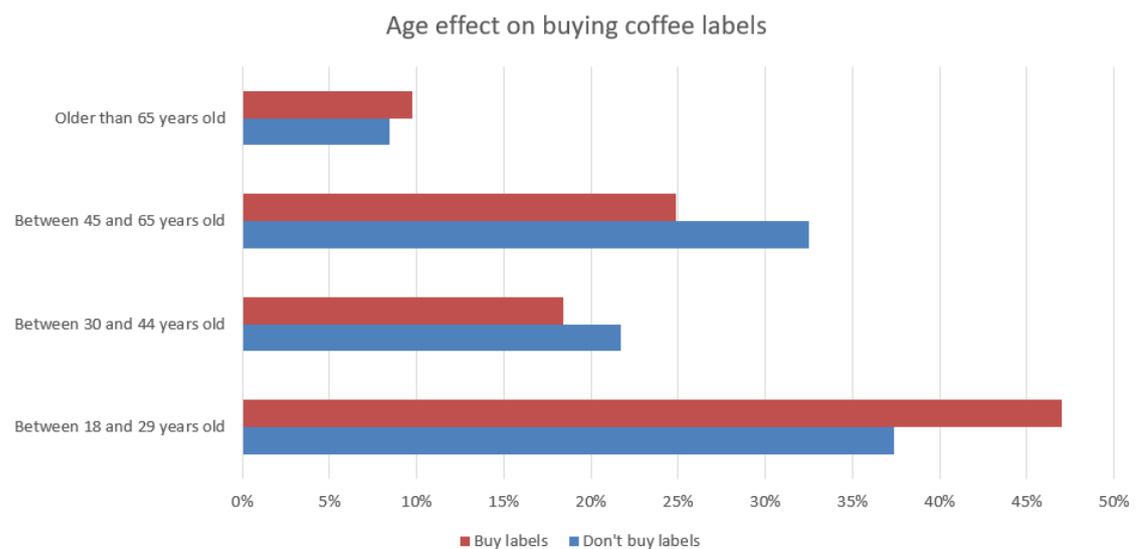
Figure 15: Gender effect toward label purchase



We can notice that the highest percentage of the gender that does not buy labeled coffee is the female gender. However, when we compare it to the total number of participants and female representation in the total number, we can notice a slight tendency for women to buy fewer labels than men. Thus, we can conclude that gender does not affect the consumption behavior toward labeled coffee.

### 3.3.7.4 Age impact on the coffee label purchase behavior:

Figure 16: Age impact on coffee purchase label behavior.

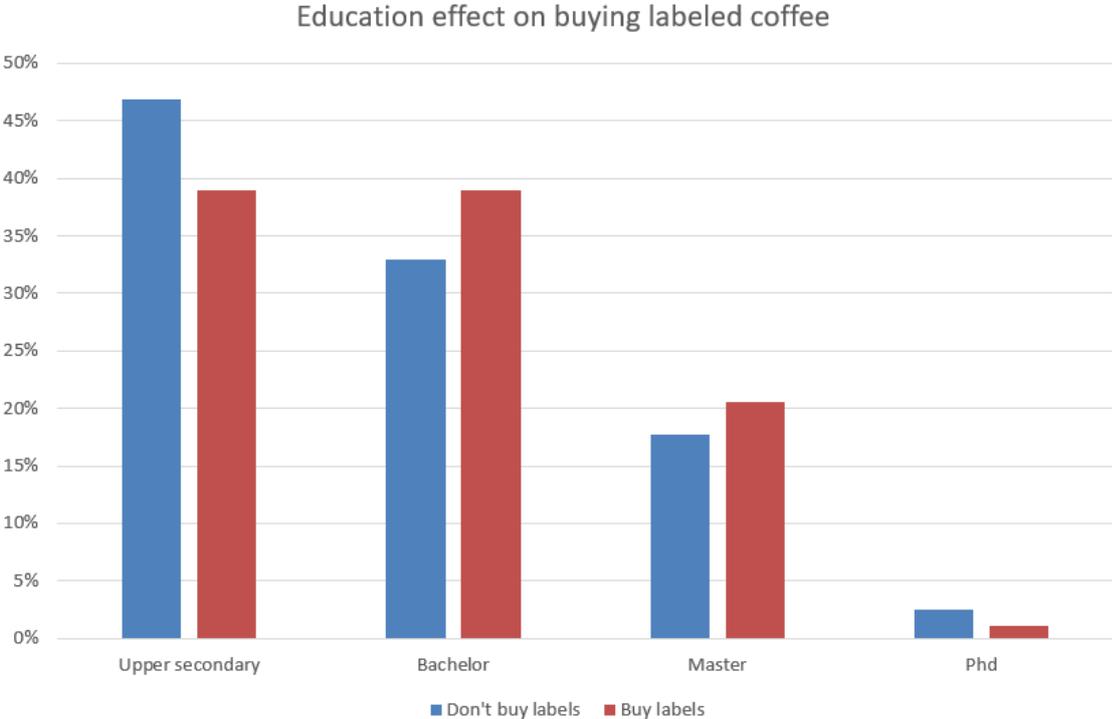


We can notice by comparing the total participants' ages and the age of people who do not buy labels that the older the participants get, the fewer chances are for them to buy

a labeled coffee. We can conclude a negative correlation between age and buying labeled coffee.

**3.3.7.5 Level of education impact on the coffee label purchase:**

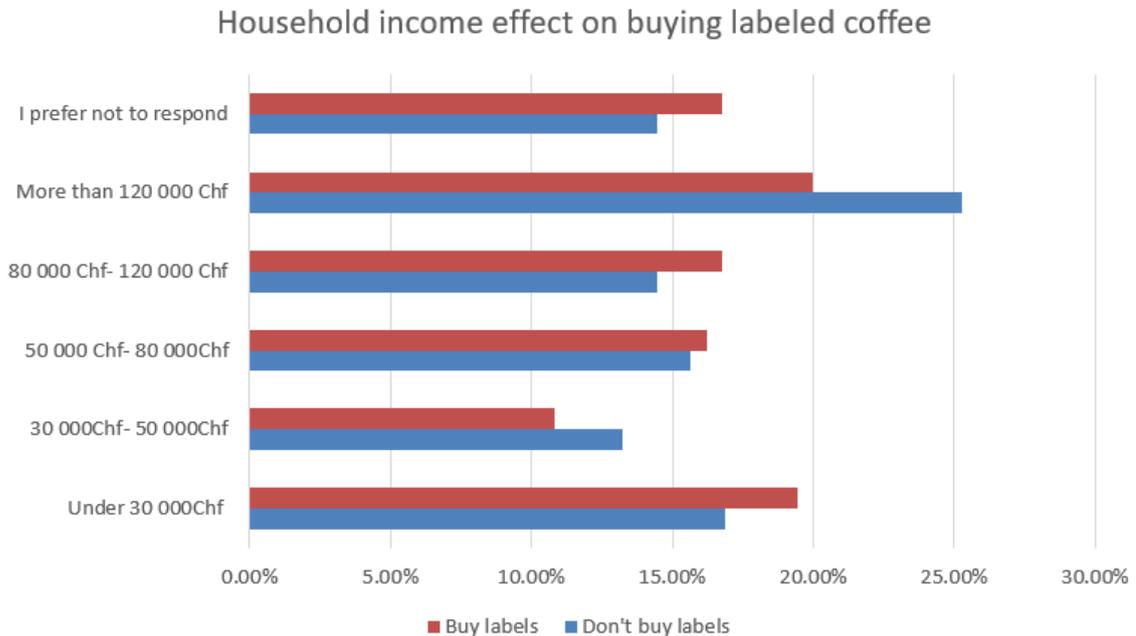
*Figure 17: Education effect on buying labeled coffee.*



We can notice a certain level of correlation between the education level and buying labeled coffee. The more the participants were educated, the more they stated that they purchase labeled coffee.

### 3.3.7.6 Household income effect on buying labeled coffee:

Figure 18: Household income effect on buying labeled coffee.



We can notice a difference between the total participants and the participants not buying labels for two specific groups. The first refers to the people with a household income between 30 000CHF and 50 000CHF; 13.25% of this group does not buy labeled coffee, yet only 10% of this group is within the participants. There is a tendency for this group not to buy labeled coffee.

The second group is the one with a household income of more than 120 000Chf; 25.3% of this group does not buy labels, compared with a total representation of 20%.

We can say that household income impacts the participants' behavior only if they have a very high household income or a very low one.

### 3.3.7.7 Finding:

As a small conclusion, we can say that age, level of education, spending habits, household income, and gender are all factors that impact the purchase habits of labeled coffee for the participants. Thus, the same variables that influence the knowledge about coffee labels are the same for coffee labeled purchase. The second conclusion is that it is not because the participants know about the coffee labels that they will buy them. We had noticed a significant drop in the participants that do not purchase labeled coffee compared to knowing the coffee. Yet these results will be reevaluated through statistics in point 3.4.1.

### 3.3.8 Analysis On Why The Participants Choose A Specific Label:

The participants have been asked the following question: “*why do you buy this specific label(s)?*”

To analyze the question, we will list all the terms, lemmatize them, then semantically categorize them. Finally, we will compute the frequency through the frequency table.

This question will be analyzed in the same way as the first open question in part 2.

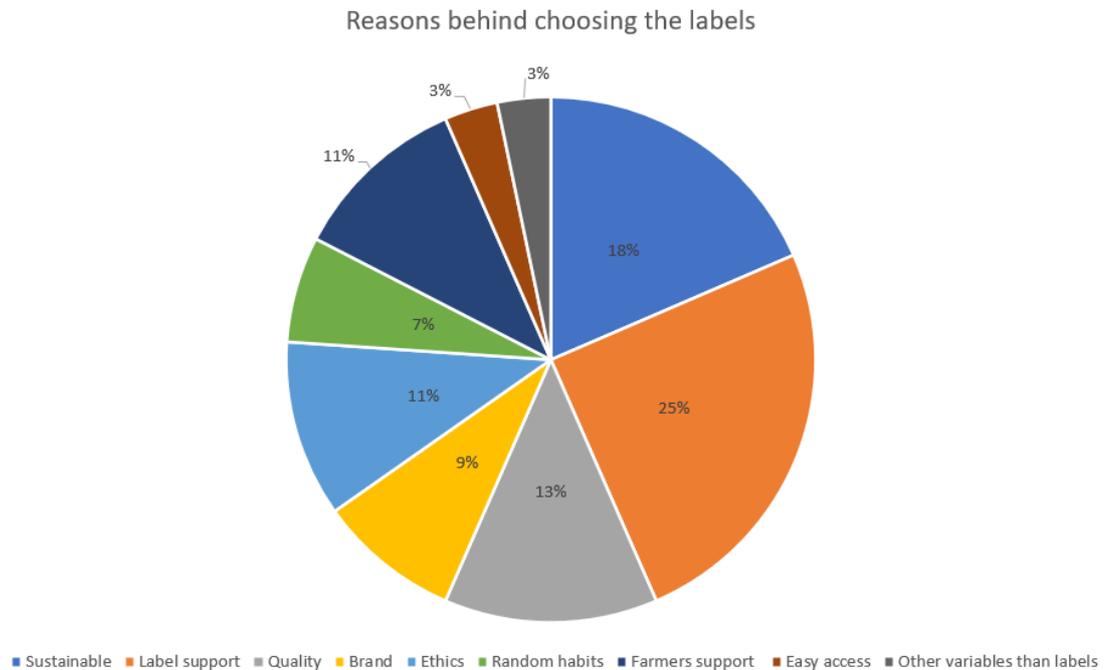
The question was an open question but not mandatory to help keep the level of participation high. It was also only asked for the people who buy a specific label. For the French part, 65 participants chose to answer. For the English part, 11 participants chose to respond. The French wording has been translated to English to facilitate the lemmatization.

For the categories, we have decided to choose nine categories that fit the results well. The different categories are as follow:

- **Sustainable:** Sustainability was used when the participants talk about the environment.
- **Label Support:** This category has been used to categorize participants who show particular trust and support toward the labels.
- **Quality:** This category relates the labels to the excellence in the quality of coffee.
- **Brand:** This category is for the participants who buy their coffee depending on the brand, the fact that the coffee possesses a label is a pure hazard and is not a criterion to buy the coffee.
- **Ethics:** This category relates to personal beliefs and ethical behaviors behind the choice of labels.
- **Farmer's support:** This category is for the participants who answered by supporting the small farmers and caring about their well-being.
- **Random habits:** This category is for the participants who chose the labels for arbitrary reasons; for example, because of family pressure or they got used to it randomly.
- **Easy access:** This category is for the participants who buy their coffee from small shopkeepers having all their coffee labeled.

- **Other coffee variables than labels:** This category is for the participants who chose their coffee for other variables, like taste and intensity. The fact that these coffees have labels is not a criterion for them to buy them.

Figure 20: Reasons behind choosing a specific label



Of all the participants 25% choose a specific label because they support what the label does for the environment or/and the small farmers. They trust those labels and believe in their actual impact on environmental issues and societal issues. They believe that if the label of their choice is applied to a specific brand of coffee, the product will have a positive ecological and societal impact.

Also, 18% of the participants buy their favorite labels for the sustainable aspect of those labels. The choice is mainly based on the outcome and what the label is doing more than the label itself. Their selection is based on sustainable and durable coffee consumption without any environmental or societal consequences.

Furthermore, 13% of the participants believe that the labels make the coffee a better coffee quality-wise. These participants believe the quality of the beans is better for labeled coffee than conventional coffee. Thus, the taste is better for a coffee with a label than a coffee without a label.

Still, 11% of the participants buy a specific label for the small coffee farmers' support. They believe that those farmers deserve a decent life with their families and that buying coffee with specific labels will help improve the living standard of those farmers.

Moreover, 11% of the participants buy a specific label for ethical reasons. They want to be a good consumer that positively impacts the economy by supporting sustainable production.

Nevertheless, 9% of the participants do not purchase the label for the label itself, but for the brand. The label only happens to be on those brands. But if the brand decided to take off these labels, they would not change their way of consumption. In other words, the labels are being pushed by the brands.

However, 7% of the participants, buy those specific labels for random reasons. They cannot define why they do it, but they are used to doing it. Some of these participants claim they got used to it with their family, or just bought it the first time and kept doing it, or because they know the logo and kept on buying it.

Only 3% of the participants do it because it is easy to access. These people buy their coffee from small shopkeepers, and those shopkeepers only offer sustainable coffee. The reason behind their choice is mainly based on the place of sale more than the labels.

The last 3% of the participants who buy coffee with labels do it for other reasons. They will base their choice on other variables like taste, intensity, and other variables, but not labels.

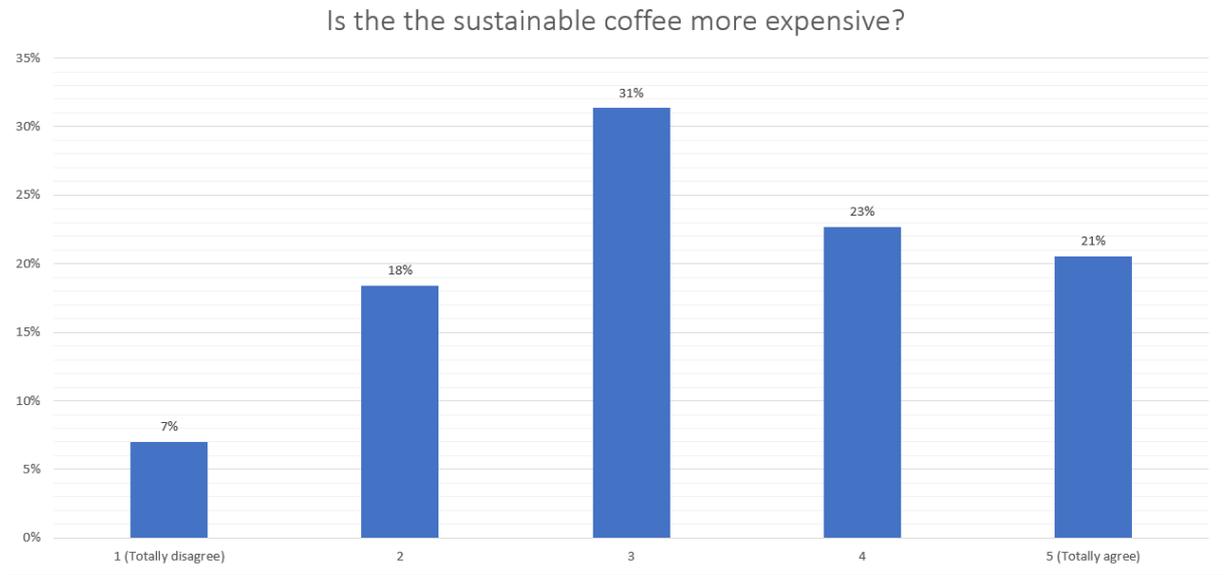
We can notice that 78% of the participants who answered the question above buy specific labels for good reasons. They are choosing their coffee based on labels and the impacts of these labels on coffee farming. The labels are not pushed on them, and their selection is intended and well thought. The other 22% buy the labels but for different reasons.

### **3.3.9 Part 4 Analysis: The Perception Of Consumers Toward Sustainable Coffee.**

This part is based on analyzing how the participants perceive sustainable coffee. To do so, we have created a multi-choice grid, asking the participant to grade some statements about sustainable coffee from 1 to 5, with one as disagree entirely and five completely agree. After the analysis, we found the following results. All the questions were mandatory for the 185 participants.

### 3.3.9.1 Is sustainable coffee more expensive?

Figure 21: Perception toward the pricing of sustainable coffee



This question has been asked to assess the perception of the participants over the pricing of sustainable coffee.

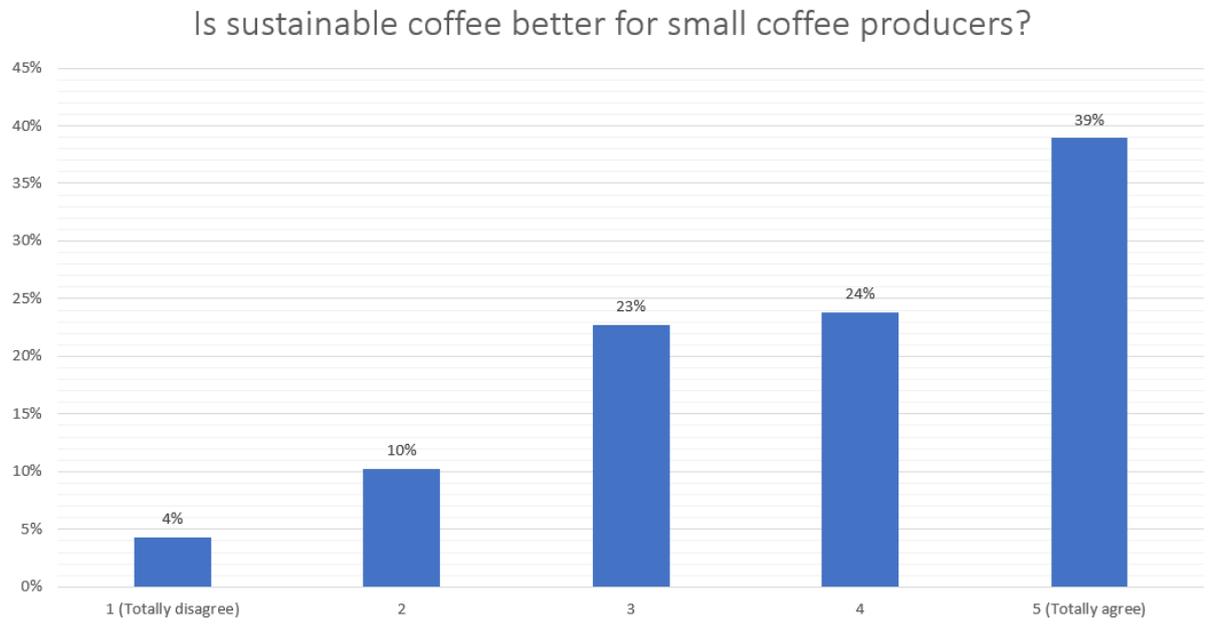
Of all the participants, 21% are totally sure that sustainable coffee is more expensive than conventional coffee, 23% agree that sustainable coffee is more costly. That means 44% of the participants agree that coffee with a sustainable label will automatically make it more expensive than conventional coffee.

In addition, 31% of the participants are neutral toward this question. They do not know if the labels or the fact that coffee is sustainable will impact the price.

Nevertheless, 18% of the participants disagree that sustainable coffee is more expensive than conventional coffee, and 7% totally disagree that sustainable coffee is more expensive than traditional coffee. This means that 25% of the participants think that the coffee price is not impacted by the fact that it is labeled or not, but other factors and variables impact it.

### 3.3.9.2 Is sustainable coffee better for small coffee producers:

Figure 19: The perception of the impact of Sustainable coffee on the small coffee farmers



This question has been asked to assess the participants' perspective on the effect of sustainable coffee on small farmers' lives and see if they believe in the fairtrade labels.

Of all the participants, 39% totally agree that sustainable coffee helps small coffee farmers, 24% also agree that it helps the small coffee producers. Thus 63% of the participants agree that buying a labeled fairtrade coffee will help small coffee farmers improve their living standards.

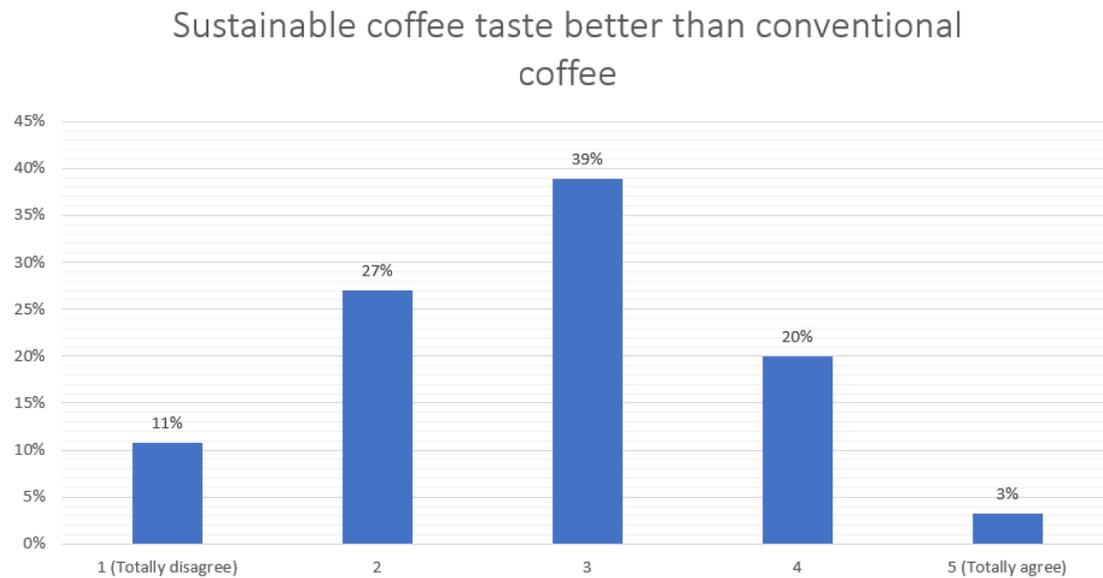
However, 4% of the participants totally disagree that sustainable coffee does not help improve the lives of small farmers. 10% also disapprove of the statement above. Hence, 14% of the participants think buying sustainable coffee has no impact on the small coffee farmers.

Also, 23% of the participants are neutral for the question above. They have no clear opinion about what sustainable coffee can do for the life of small coffee farmers.

In conclusion, most participants think buying sustainable coffee will positively impact the lives of small farmers, and only a tiny minority thinks otherwise. This shows trust from the participant in the Fairtrade labels and their actual impact.

### 3.3.9.3 Does sustainable coffee taste better than conventional coffee:

Figure 22: Perception of sustainable coffee taste



This question has been asked to assess the participants' point of view over the impact of sustainable coffee farming behavior toward the perception of the participants' taste.

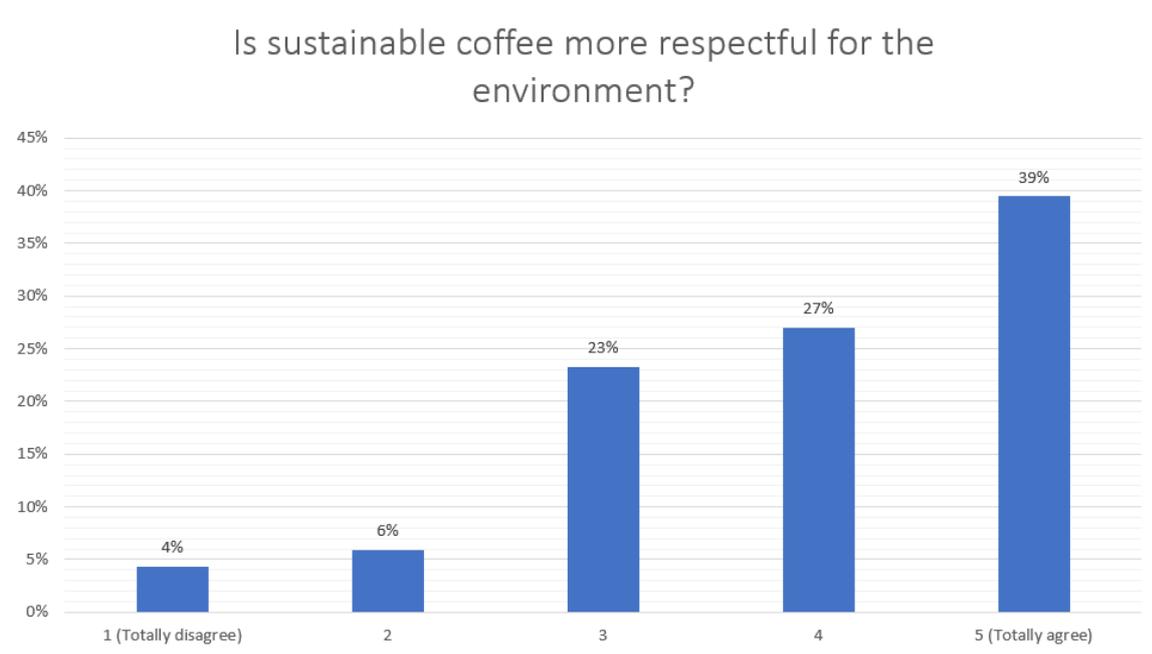
Of all the participants, 11% totally disagree that sustainable coffee taste better, 27% disagree too. That means 38% of the participants think that the coffee methods to produce sustainable coffee make the coffee bean worse than the conventional coffee.

Nevertheless, 3% of the participants think that sustainable coffee totally tastes better than conventional coffee, and 20% of other participants agree with them. That means 23% of the participants feel that the sustainable methods used to cultivate the coffee bean make them better for the taste of the coffee and change the coffee in the right way.

In addition, 39% of the participants have a neutral opinion that sustainable coffee tastes the same as conventional coffee, and the methods used for farming do not impact the taste.

### 3.3.9.4 Is sustainable coffee better for the environment:

Figure 23: The perception of the sustainable coffee influence over the environment



This question has been asked to assess the participants' point of view over the farming behavior of sustainable coffee and its effect on the environment.

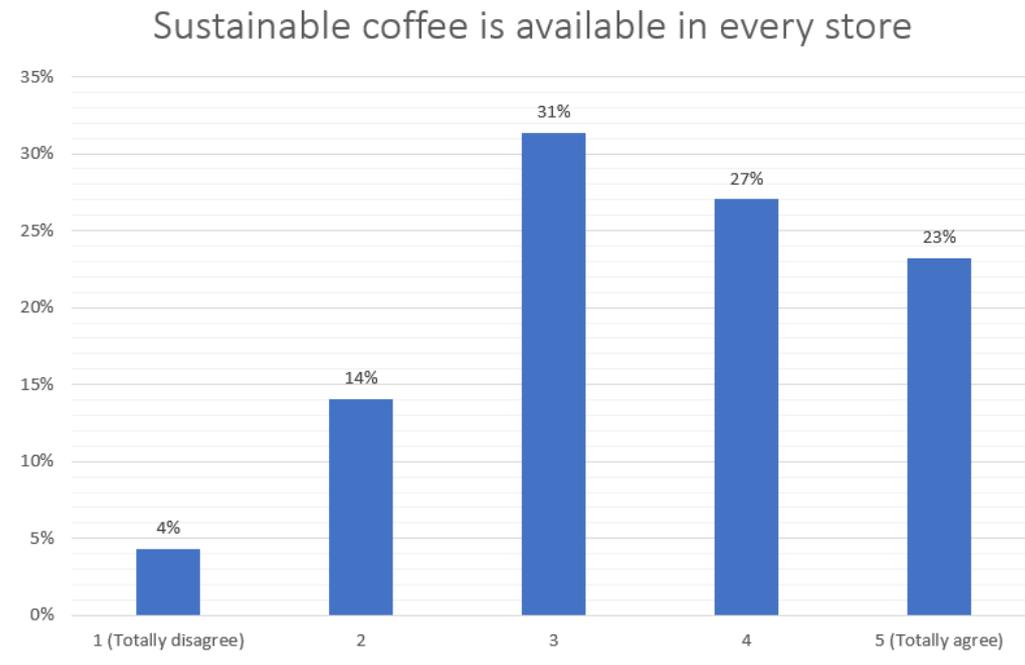
Of all the participants, 39.5% totally agree that sustainable coffee is more respectful of the environment. Also, 27% of the participants agree that sustainable coffee is respectful to the environment. That means more than most participants think that sustainable coffee is good for the environment compared to conventional coffee.

Nevertheless, 4.5% of the participants totally disagree with the idea above, and 6% disagree with the same statement. Consequently, 10% of the participants do not think that sustainable coffee has a good impact on the environment.

Moreover, 23% of the participants are neutral and do not think that sustainable coffee is more respectful or harmful for the environment.

### 3.3.9.5 Is sustainable coffee available in every store:

Figure 24: The perception of the availability of sustainable coffee



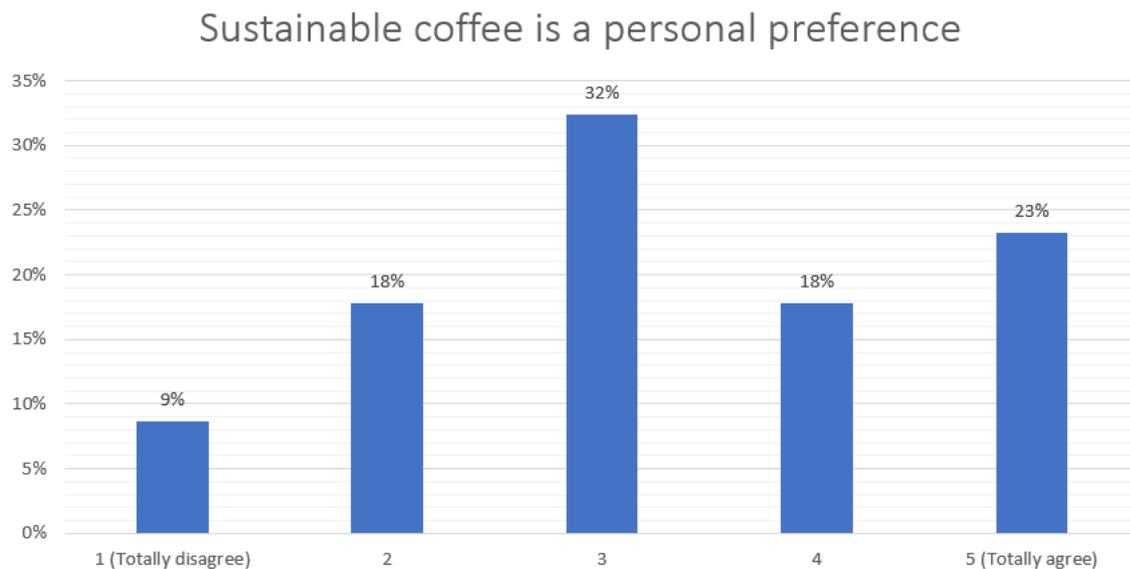
This question has been asked to assess the participants' point of view over the availability of sustainable coffee in the distributing stores.

Of all the participants, 23% totally agree that sustainable coffee is available in every coffee selling store in the Swiss Romande. 27% concur with the same idea. That means half of the participants think that sustainable coffee is available in every store that sells coffee in the Swiss Romande.

Nonetheless, 4% of the participants disagree totally with the idea that sustainable coffee is available in every coffee selling store, and 14% disagree with the idea too. Thus, 18% of the participants think they will not find sustainable coffee in every store selling coffee in the Swiss Romande.

Moreover, 31% of the participants are neutral and do not have a strong opinion if sustainable coffee is available or not in every coffee selling store.

### 3.3.9.6 Is sustainable coffee a personal preference:



This question assesses the participant's perspective on the consumption of sustainable coffee to see if it is based on a personal preference.

Of all the participants, 23% totally agree that the consumption of sustainable coffee is a personal preference, and 18% agree that sustainable coffee is a personal preference. That means 41% of the participants agree with the statement above.

Nevertheless, 9% of the participants disagree entirely with the statement above, and 18% just disagree with it. It means that 27% of the participants think consuming sustainable coffee is not only a personal preference.

Only 32% of the participants have been neutral for that statement.

### 3.3.10 Conclusion Of The Qualitative Study:

The average Swiss Romande coffee consumer is a heavy coffee consumer, with 83.25% drinking at least one cup of coffee per day. The brand most bought is Nescafé, and it does not have any label, followed by Starbucks that has created its label.

The most relevant criterion for 46% of the consumer is the taste of coffee, and only a minority, represented by 9%, takes as a crucial criterion the sustainable labels for coffee.

Max Havelaar is the most known coffee label for the consumer, but also the four most known labels in the coffee Swiss Romande market are Swiss-made labels. Only 4% could not recognize or come up with a coffee label in the large group of participants. The knowledge of the labels is negatively correlated to the consumers' age and positively

correlated with the level of education, spending habits on coffee, and household income. The knowledge of coffee labels can also be slightly in favor of men.

Nevertheless, 29% of the total participants choose not to buy any label. This shows the contrast between knowing and believing the labels. Even if the participants know the labels, it isn't a sufficient reason for them to purchase them.

Max Havelaar is also the label that seduces the consumers the most, with 22% of the participants claiming to buy Max Havelaar. The four most bought labels in the Swiss Romande market are also Swiss Made. This shows a tendency for the trust of the Swiss Romande consumers in labels created by their home country.

The study has shown a difference between the labels known and the labels bought. Consumers can know a label, but it does not mean they trust it or are willing to buy it. This can be noticed by comparing the percentage of the consumer knowing a label and the portion buying it. The only two labels that have almost similar rates between known and bought are Max Havelaar and U.T.Z.

The consumers who buy labels mainly choose these labels because they trust them and believe and support the ideology behind the label. 79% of the participants buy labeled coffee by choice and willingness. The other 22% purchase them because the labels are pushed on them.

The perception of labeled coffee differs between the consumers. 44% of the consumers think that adding a label on a coffee will make it more expensive, while only 25% believe that labels do not impact the price of coffee.

Most of the participants judge that the fairtrade labels positively impact the lives of small coffee farmers by improving their social and economic situation. In comparison, 14% do not believe in the impact of these labels.

Only a minority of the participants think that the biological farming of coffee makes it taste better; thus, bio coffee has a better taste than conventional coffee, but 38% think otherwise.

The sustainable methods used for coffee farming are perceived by 66.5% of the participants as useful to preserve the environment, and only 10.5% think the contrary.

The availability of sustainable coffee in the Swiss Romande market is judged pretty available in every store that sells coffee by 50% of the participants. Only 18% think that it is not that easy to access sustainable coffee everywhere.

Sustainable coffee is seen as a personal preference by 41% of the participant. 27% of the participant disagree with this opinion.

### 3.4 Quantitative Study: The Description Of The Profile That Buys Fairtrade Label And Eco-Friendly Label:

#### 3.4.1 Presentation of the results :

To make the results easy to read, we will present them in two tables, and each table will have its explanation. One of the tables will be about the eco-friendly label, and the other one will be about the Fairtrade label.

Also, to facilitate the reading, the results with \*\*\* have a 1% or less margin of error, \*\* have a 5% or less margin of error, and \* have a 10% or less margin of error.

##### 3.4.1.1 Eco-friendly bought:

Table 3: Eco-friendly multiple regression finding.

	Coefficient	Standard deviation	P>  t
Frequency of coffee consumption	0.04282	0.1693	0.800
Spending on coffee	0.1949301	0.240048	0.417
Gender	-0.56858514	0.3651442	0.119
Age***	-0.558563	0.2089357	0.008
Education**	0.5261481	0.2364511	0.026
Income	-0.053924	0.1301698	0.679

The two variables that have significant results are age and education.

Age\*\*\* has a negative coefficient of -55.86%. That means the older is the participant, 55.86% fewer chances that this participant will choose to buy an eco-friendly label.

Education\*\* has a positive coefficient of 52.61%. This means that the more educated the participant is, the 52.61% more chances this participant will buy an eco-friendly label.

Eco-friendly labels are negatively correlated with age and positively correlated with education.

### 3.4.1.2 Fairtrade bought:

Table 4: The multiple regression of the fairtrade label results

	<b>Coefficient</b>	<b>Standard deviation</b>	<b>P&gt;  t </b>
Frequency of coffee consumption**	-0.4106	0.1756	0.019
Spending on coffee**	0.5997	0.2490	0.016
Gender*	-0.6652	0.3673	0.070
Age*	-0.3640	0.19997	0.069
Education	0.1350	0.2320	0.56
Income	0.03376	0.13196	0.79

The variables that have significant results are frequency of coffee consumption, spending on coffee, gender, and age.

The frequency of coffee consumption has a negative coefficient. That means there are fewer chances if the participant drinks coffee on a higher frequency to buy fairtrade coffee.

Monthly spending on coffee has a positive coefficient. That means the more a consumer spends on coffee; the more chances he will be buying Fairtrade labeled coffee.

Gender has a negative coefficient. Since we took the female value as 1 in the excel table. This means women will be less likely to buy a fairtrade label than men.

Age has a negative coefficient. This means the older the consumer is, the less chance he will buy a fairtrade labeled coffee.

### **3.4.2 Conclusion Of The Second Quantitative Study:**

The profiles that tend to buy eco-friendly are not the same as those that tend to buy Fairtrade. The Eco-friendly label has more chances to be bought by young people and more educated people. The fairtrade label is more bought by the young male population who spends more on coffee and does not drink it frequently.

We tried to do the same study, but instead of fairtrade and eco-friendly, we tried to select the labels which are known. Sadly, the only valid result we could take from this study is that age is negatively correlated with the knowledge of fairtrade labels by 45.60%\*\* . Also, that age is negatively correlated with the knowledge of eco-friendly labels by 88.27%\*\*\*. The following numbers are available in the appendix.

## **4. Discussion:**

### **4.1 Comparison Between the Results of the qualitative and both quantitative studies:**

The results of the study exhibit two main criteria for choosing coffee: the taste of coffee and price. Suppose we go back to the literature review. We find that the taste of coffee is impacted by many variables like the origin, type of the bean, roasting that defines the intensity of the coffee, grinding, organic farming, and other factors (DE'LONGHI, 2021).

In the quantitative study, we concluded that the origin, type of bean, and intensity do not affect the final price of coffee. However, the bean does; the quantitative study demonstrated that ground coffee is cheaper than coffee beans. The DE'LONGHI article also stated that the whole beans are better for the taste than ground coffee. The eco-friendly label also impacts the price by 15%, and as stated in the literature review, the organic/Bio coffee impacts the taste positively. Thus, two factors that influence the taste of coffee for the better also make the coffee more expensive, showing a slight correlation between the taste and the pricing of coffee. The price is also affected by the brand positioning. Branding is the variable that influences the price the most.

The majority of the participants buy their coffee with labels, the four most bought labels are Bio, and only one from these four is Fair-trade (Max Havelaar). This can explain why the label Bio impacts the price but not the Fair-trade label. Also, in the category of the coffee label buyers, 22% of the participants buy labels without actual convictions for the labels but for other reasons like taste, brand, easy access.

Most of the participants claim that sustainable coffee is available in every store in the Swiss Romande. If we compare these results with the data collection done for the hedonic study, we can approve these claims. Additionally, if we consider the quantitative research, we can also say that depending on the stores, the price of the coffee will change.

### **4.2 Conclusion of the Qualitative and Quantitative studies:**

The Swiss Romande market offers a diverse type of coffee. The offer is immense, and each coffee has variables impacting price, making the consumer face the hard choice of choosing its coffee and constructing its view over coffee.

The coffee pricing is mainly affected by the selling brand. The way a brand positions itself on the market will automatically impact the price. The eco-friendly labels change

farming to a more sustainable and durable way, without using any pesticides. This label impacts the price and makes the coffee 15% more expensive than conventional coffee. This type of farming also impacts the taste of coffee positively. The eco-friendly label is not the criterion that impacts the price the most. On the other hand, the Fairtrade label that positively impacts the small farmers' lives has no impact on coffee's final price.

The large majority of Swiss Romande consumers know the coffee labels available on the market. Nevertheless, knowing about these labels does not automatically push them to buy them. There is a mismatch between knowledge and purchase on the market. This mismatch can be related to a lack of trust in specific labels and their actual impact. It can also be connected to a lack of knowledge about the environmental and social issues related to coffee farming. Some customers buy sustainable coffee because the brand promotes these labels on them, not based on conviction.

The participants that are young and more educated have more chances of buying eco-friendly labeled coffee. For the fairtrade labeled coffee, there are more chances for the young male that spend more on coffee and drink it less frequently to buy this label.

A minority of the Swiss Romande coffee consumers do not believe in the labels' actual impact on the farming of coffee. The lack of trust is translated by consumers not buying coffee with labels.

There is a mismatch between how the customers perceive sustainable coffee and the offer on the market. The customers view sustainable coffee as way more expensive than how sustainability truly affects the price.

The majority of the participants do not think that sustainable coffee tastes better than conventional coffee. However, the organic way of growing the coffee and the lack of chemicals make the coffee taste better.

### **4.3 Recommendation Over The Qualitative Results:**

This recommendation is meant to make sustainable coffee attractive for the 29% of the participants who do not purchase sustainable coffee.

The difference between consumers who do not know the labels and those who are aware of these labels without buying them is significant. This shows a lack of trust and believes in the labels. Our first recommendation is to make the labels more attractive for the consumers. The fact that the taste attracts the consumers could promote the organic

farming of coffee and its effect on the taste. This might attract more consumers toward eco-friendly labeled coffee.

There is a negative correlation between the age of consumers and their purchase habits toward sustainable coffee and knowledge of fairtrade and eco-friendly labels. To deal with this issue, marketing campaigns targeting elders, showing the negative effect of conventional coffee on the kids and the future generation, might sensitize them to choose more sustainably in the future as well as show them how labels work and their impact through targeted marketing channels.

The pricing of the coffee is mainly based on the branding and what the brand wants to achieve. Introducing sustainable coffee for these brands will cost more, but it will improve the quality of their coffee. Negotiating with them to adopt more ethical sourcing can help them develop their brand and attract more consumers in the Swiss Romande market.

Transparency from organizations that label coffee can also persuade pessimist people about the label's effect and maintain the customers that purchase labels and trust them.

## 5. Conclusion

Sustainable labels are created to fight the negative externalities that conventional coffee produces. These certifications can be environmental, social, and economic.

As proven in the quantitative research, the final price of coffee in the Swiss Romande market is defined by several variables. Still, the variable that affects the price the most is the branding of the coffee. Nevertheless, we have shown that eco-friendly labels affect the price by making the coffee 15.71% more expensive than conventional coffee. On the other hand, Fairtrade coffee has no impact on the final price. This effect over the price can be noticed by 44% of the participants, who believe that sustainable coffee will be more expensive than conventional coffee.

Taste and price are the two most important criteria for the purchase habit of coffee in the Swiss Romande. Labels increasing prices can discourage the consumers from buying more sustainably. However, since taste is the most relevant criterion, consumers can be encouraged to purchase sustainable coffee for a better taste, even if it will cost more. After all, the Swiss Romande consumers are heavy spenders on coffee per month, since 47% spend more than 20CHF on coffee.

Around 29% of the consumers do not buy sustainable coffee, yet only 10% of all the consumers do not believe in the environmental and social impact of the labels. This shows that there is a possibility to shape and change the opinion of 19% of the 29%. The population susceptible to change its purchase habits is more likely to be elders, low education level, and big spenders on coffee. Although, this demographic criterion can vary depending on whether the label is eco-friendly or fairtrade.

The 71% of the participants that buy labels strongly believe in the impact of buying sustainable and not conventional coffee. Only a minority buy specific labels for other reasons than labels.

Considering that sustainable consumption is growing yearly in Switzerland, the consumers buying sustainable coffee might see their percentage grow through the years.

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# Appendix 1: The Hedonic results on Stata.

```

. regress log_Prix Size strongness fairtrade Ecofriendly Singleoriginnot Solube Capsule Moulu ArabicaRobusta Robusta Minges Bellarom NescaféGold Dolcegusto CafédelMundo CafféCondo
> F Mclassic BioMaxHavellar Exquisito EspressoClassico Roncampo Delizio MBudget Lasemouse CaféRoyal Cafino Noblesse Caruso Nescafé Starbucks Ior Prixgarantie LaMocca ChiccoDoro Natu
> raplan Lavazza Movenpick Jacobs Qualitéétprix TropicalMountains Saporì Onesto MastroLorenzo Segafredo Jubilor Tchibo Maillardos Henauer ElImposibleRoster RastKaffee Ily Amici Jaco
> bsgold Nespresso
note: EspressoClassico omitted because of collinearity

```

Source	SS	df	MS	Number of obs	=	181
Model	35.9424578	53	.678159582	F(53, 127)	=	11.80
Residual	7.48622993	127	.058946692	Prob > F	=	0.0000
				R-squared	=	0.8276
				Adj R-squared	=	0.7557
Total	43.4286878	180	.241270488	Root MSE	=	.24279

log_Prix	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
Size	.0009874	.0001569	6.29	0.000	-.0006777 .0012979
strongness	-.0252403	.020879	-1.21	0.229	-.0665561 .0160755
fairtrade	-.0171353	.0816004	-0.21	0.834	-.1786077 .1443371
Ecofriendly	.15707	.0799575	1.96	0.052	-.0011514 .3152914
Singleoriginnot	-.042945	.0859581	-0.50	0.618	-.2130405 .1271506
Solube	.2163516	.1751113	1.24	0.219	-.1301621 .5628653
Capsule	.1938809	.0979134	1.96	0.052	-.089872 .2975337
Moulu	-.2203659	.0823456	-2.68	0.008	-.3831129 -.0574188
ArabicaRobusta	.0506845	.0663993	0.76	0.447	-.0807077 .1820767
Robusta	-.1763455	.1389942	-1.27	0.207	-.4513899 .0986989
Minges	-.7735035	.3962284	-1.95	0.053	-1.557568 -.0105609
Bellarom	-.4582455	.2690354	-1.70	0.091	-.9906179 .074127
NescaféGold	.6828369	.3216676	2.12	0.036	-.0463148 1.319359
Dolcegusto	.4914648	.2941362	1.67	0.097	-.0905777 1.073507
CafédelMundo	.0065752	.3533108	0.02	0.985	-.6925632 .7057135
CafféCondo	-.0328322	.2907048	-0.11	0.910	-.6808845 .5424202
Mclassic	-.1855724	.2874885	-0.65	0.520	-.7544603 .3833155
BioMaxHavellar	.1477702	.27317	0.54	0.589	-.392784 .6883244
Exquisito	.145145	.295716	0.49	0.624	-.4400235 .7303136
EspressoClassico	0	(omitted)			
Roncampo	-.2801268	.2758508	-1.02	0.312	-.8259857 .2657321
Delizio	1.241698	.3022993	4.11	0.000	.6435022 1.839894
MBudget	-.4909403	.3245317	-1.51	0.133	-1.13313 .1512494
Lasemouse	.63286	.2727322	2.32	0.022	-.0931722 1.172548
CaféRoyal	.314891	.2828233	1.11	0.268	-.2447653 .8745474
Cafino	.4147751	.4366676	0.95	0.344	-.4493114 1.278862
Noblesse	-.1707883	.3875145	-0.44	0.660	-.9376136 .596037
Caruso	.1697016	.2921895	0.58	0.565	-.4094888 .746892
Nescafé	.1775408	.3409431	0.52	0.603	-.4971241 .8522057
Starbucks	.1570496	.2853481	0.55	0.583	-.4076028 .7217021
Ior	-.1088698	.293692	-0.37	0.711	-.6900332 .4722936
Prixgarantie	-.141316	.289719	-0.49	0.627	-.7146177 .4319856
LaMocca	.4479874	.2770356	1.62	0.108	-.1002161 .9961909
ChiccoDoro	-.0170991	.3114248	-0.05	0.956	-.6333525 .5991543

ChiccoDoro	-.0170991	.3114248	-0.05	0.956	-.6333525	.5991543
Naturaplan	.2511541	.3068835	0.82	0.415	-.356113	.8584211
Lavazza	.4151941	.2815667	1.47	0.143	-.1419755	.9723637
Movenpick	.4133542	.3199149	1.29	0.199	-.2196997	1.046408
Jacobs	.2724228	.3175304	0.86	0.393	-.3559126	.9007582
Qualitéétprix	.1907117	.296232	0.64	0.521	-.3954779	.7769013
TropicalMountains	.566353	.3758615	1.51	0.134	-.1774091	1.310115
Saporì	.6591595	.3652041	1.80	0.073	-.0635136	1.381833
Onesto	.5146341	.3618856	1.42	0.157	-.2014721	1.23074
MastroLorenzo	.3360447	.3672758	0.91	0.362	-.3907277	1.062817
Segafredo	.4978551	.3771045	1.32	0.189	-.2483665	1.244077
Jubilor	.0919296	.3669216	0.25	0.803	-.634142	.8180012
Tchibo	.5372765	.3722721	1.44	0.151	-.1993828	1.273936
Maillardos	.7707679	.3382285	2.28	0.024	.1014748	1.440061
Henauer	.7073518	.2837412	2.49	0.014	.1458792	1.268824
ElImposibleRoster	.9823026	.3200021	3.07	0.003	.3490762	1.615529
RastKaffee	.6750026	.3353237	2.01	0.046	.0114574	1.338548
Ily	.5040971	.3059478	1.65	0.102	-.1013183	1.109512
Amici	1.593744	.3157152	5.05	0.000	.9690001	2.218487
Jacobsgold	.5134971	.4057918	1.27	0.208	-.2894916	1.316486
Nespresso	.1633344	.2974342	0.55	0.584	-.4252342	.751903
_cons	1.420722	.2984433	4.76	0.000	.8301568	2.011288

```

. correlate Ecofriendly fairtrade
(obs=181)

```

	Ecofriendly	fairtrade
Ecofriendly	1.0000	
fairtrade	0.6324	1.0000

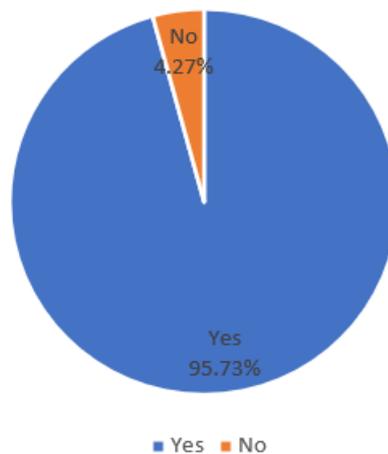
## Appendix 2: Analysis of the first part of the qualitative research:

The first question of the survey was the choice of language, the figure and the analysis are included in the demographic analysis appendix.

The second question of the survey was if the participants live in the Swiss Romande or not:

Figure 1: Number of the Swiss Romande residents

### Living in the Swiss Romande

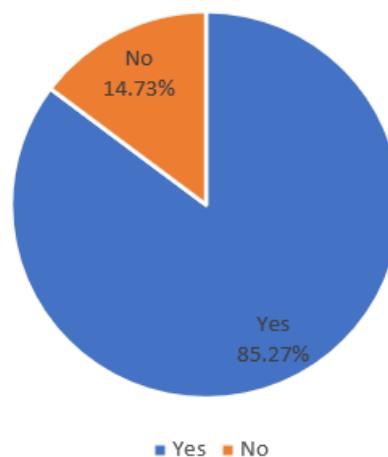


Over 234 participants, 10 of them do not live in the Swiss Romande. These 10 participants do not meet the required criteria to follow the survey. They are then sent to the final page of the survey and not considered for the following results.

The third question is if the participants buy coffee or not:

Figure 2: The number of participants buying coffee.

### Do you buy coffee?

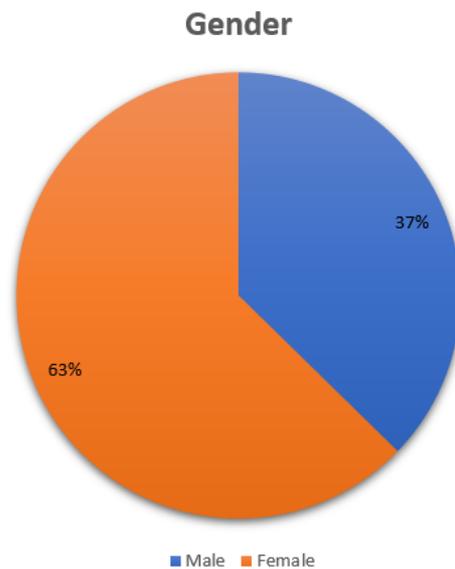


Of the 224 participants that reached this question, 191 answered positively to buying coffee, and 33 responded negatively. The 33 participants who answered no do not meet

the survey criteria anymore; thus, they have been thanked for their participation, and their answers were not considered for the following results.

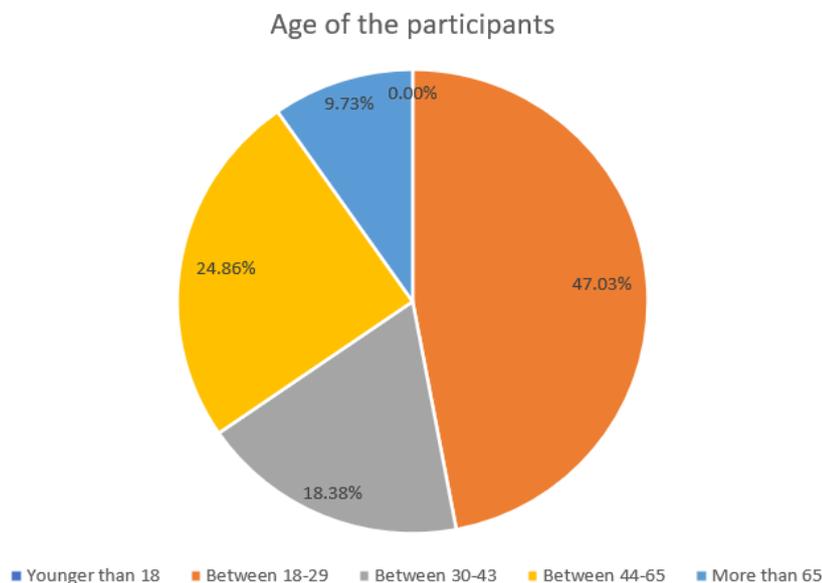
## Appendix 2 : Demographic analysis.

Figure 20: Gender percentage participation



The participants that answered the survey are not equally shared between men and women. The majority of the participants are women with 63%. The difference is not quite significant. It can be explained by the methods used to share the survey.

Figure 21: Age of the participants

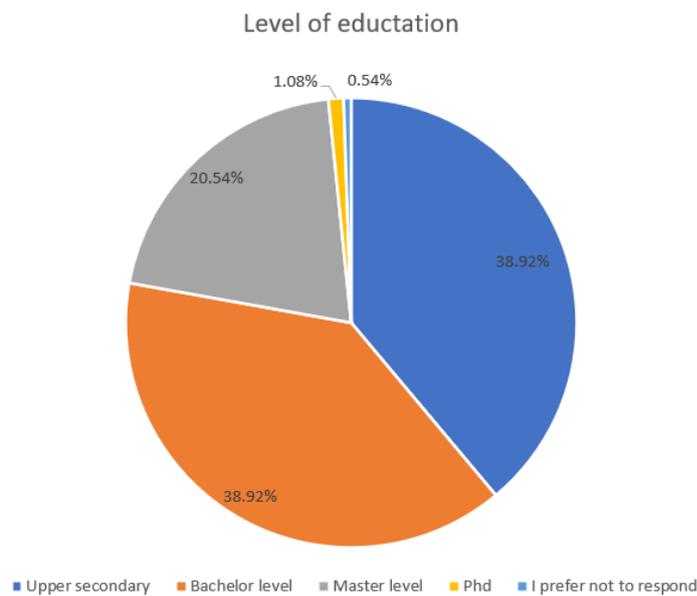


We asked the participants for their age, and their answers have been put on the pie chart above. None of the participants is younger than 18. The reason behind this might be that people under 18 do not buy coffee for their household or do not consume it. Another reason might be that the survey did not attract or reach people younger than 18 due to the means of distribution.

The majority of the participants are between 18 and 29 years. This category represents 47.03%, followed by participants between 44 to 65 representing 24.86%. In the third position, we have a population between 30 to 43, representing 18.38% of the survey. Finally, we have the participants that are over 65, and they represent 9.73% of the participants.

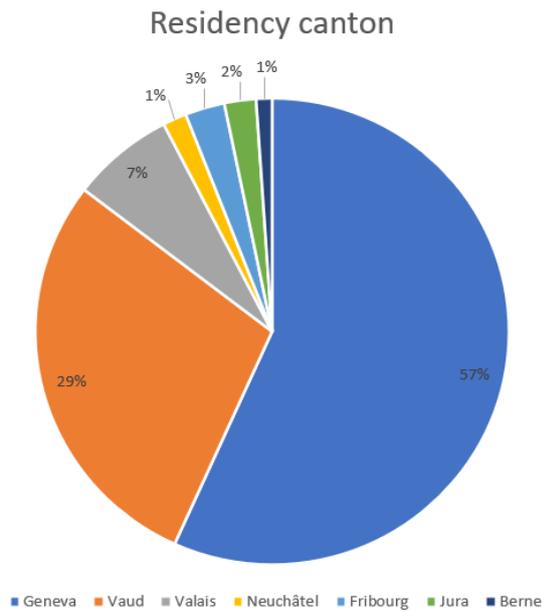
We can notice that there is a minor distortion between the participant's age, and that is a direct result of means used to share the survey.

*Figure 22: Level of education of the participants*



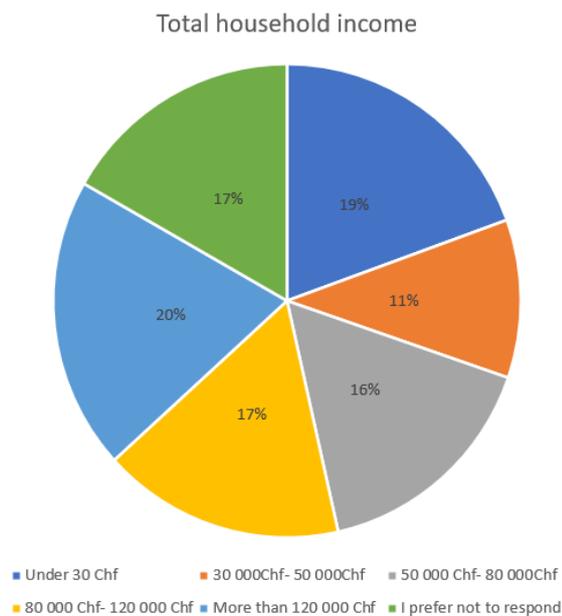
The participants have been asked to state their level of education. We can notice that in the first place we have both people that have done their upper secondary studies and people who have a bachelor's degree at 38.92%. In the 3<sup>rd</sup> place, we have the people with master's degrees that represent 20.54%. People with a Ph.D. represent just 1.08% of the participant. Only one participant preferred not to respond to this question. The percentage of the level of education is large, which can help us have a clear population representation.

Figure 23: Residency canton of the participants



The most significant number of the participants are from Geneva, representing 57% of the participants. Followed by 29% of these participants are from the canton of Vaud. 7% are from the speaking part of Valais (Bas Valais, Valais Central), 1% are from Neuchatel, 3% of Fribourg, 2% Jura, and 1% from the French-speaking region of Bern (District of Jura Bernois).

Figure 24: Total household income of the participants

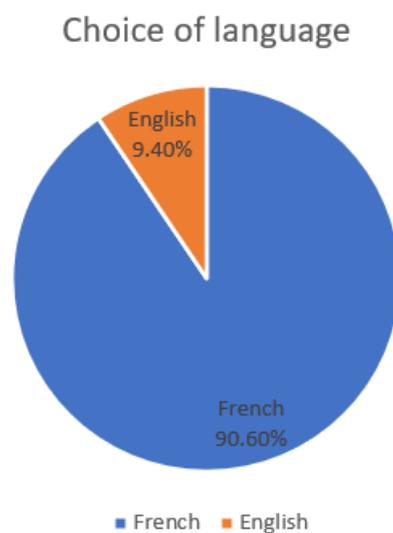


The largest segment of the participants are participants with a high household income with over 120 000Chf. This segment represents 20% of the participant, followed by 19% of the participants having a household income under 30 000Chf.

17% of the participants have a household income between 80 000Chf and 120 000Chf. This category is followed by 16 % of people having a household income between 50 000Chf and 80 000Chf. In the last position, we have 11% of the participant have a household income between 30 000Chf and 50 000Chf.

17% of the participants preferred not to state their household income.

*Figure 25:Choice of language*



Of the 234 total answers, 212 chose French, and 22 chose English. This can be explained by the fact that the Swiss Romande region is a French-speaking region, and the majority of the participant would choose French as the primary language to be used. The 9% can be explained by personal preference toward English or immigrants living in the Swiss Romande region.

## Appendix 3: Stata results for eco-friendly profile and fairtrade profile.

```
. logit Ecofriendlybought Frequencyofcoffeeconsumption Spendingoncoffee Gender age Education Income
```

```
Iteration 0: log likelihood = -102.49769
Iteration 1: log likelihood = -94.20758
Iteration 2: log likelihood = -94.121777
Iteration 3: log likelihood = -94.12176
econsumption Spendingoncoffee Gender age Education Income
```

```
Logistic regression           Number of obs   =       154
                             LR chi2(6)         =       16.75
                             Prob > chi2          =       0.0102
                             Pseudo R2           =       0.0817

Log likelihood = -94.12176
```

Ecofriendlybought	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
Frequencyofcoffeeconsumption	.04282	.1693408	0.25	0.800	-.2890819 .374722
Spendingoncoffee	.1949301	.240048	0.81	0.417	-.2755554 .6654156
Gender	-.5685814	.3651442	-1.56	0.119	-1.284251 .1470881
age	-.558569	.2089357	-2.67	0.008	-.9680754 -.1490626
Education	.5261481	.2364511	2.23	0.026	.0627124 .9895839
Income	-.053924	.1301698	-0.41	0.679	-.3090522 .2012041
_cons	-.5975445	1.008972	-0.59	0.554	-2.575094 1.380005

```
. logit Fairetradebought Frequencyofcoffeeconsumption Spendingoncoffee Gender age Education Income
```

```
Iteration 0: log likelihood = -102.96032
Iteration 1: log likelihood = -94.583932
Iteration 2: log likelihood = -94.528744
Iteration 3: log likelihood = -94.528737
```

```
Logistic regression           Number of obs   =       154
                             LR chi2(6)         =       16.86
                             Prob > chi2          =       0.0098
                             Pseudo R2           =       0.0819

Log likelihood = -94.528737
```

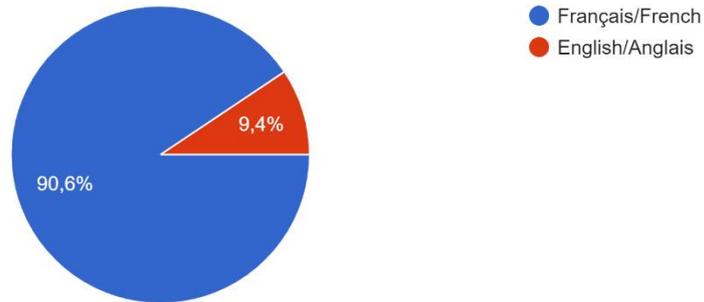
Fairetradebought	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
Frequencyofcoffeeconsumption	-.4106011	.1756038	-2.34	0.019	-.7547783 -.0664238
Spendingoncoffee	.5996924	.2490216	2.41	0.016	.111619 1.087766
Gender	-.665251	.3672759	-1.81	0.070	-1.385099 .0545966
age	-.3639521	.1999767	-1.82	0.069	-.7558992 .027995
Education	.1350634	.2319778	0.58	0.560	-.3196047 .5897315
Income	.0337551	.1319668	0.26	0.798	-.2248952 .2924053
_cons	.999348	1.01099	0.99	0.323	-.982156 2.980852



## Appendix 4: Google Form survey answers

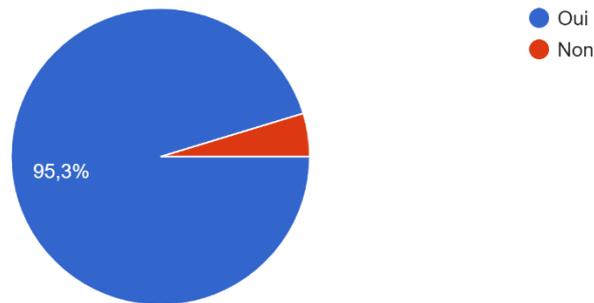
Choisissez votre langue s'il vous plait/ Choose your language please.

234 réponses



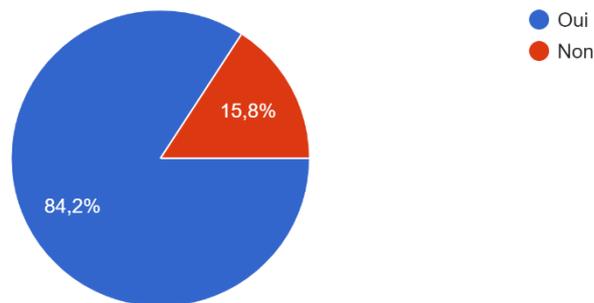
Habitez vous en suisse romande?

212 réponses

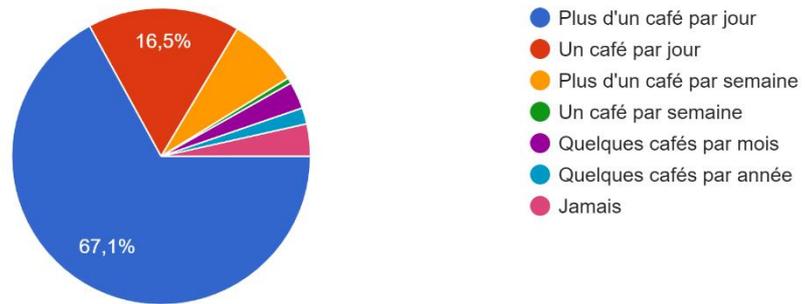


Achetez-vous du café?

202 réponses

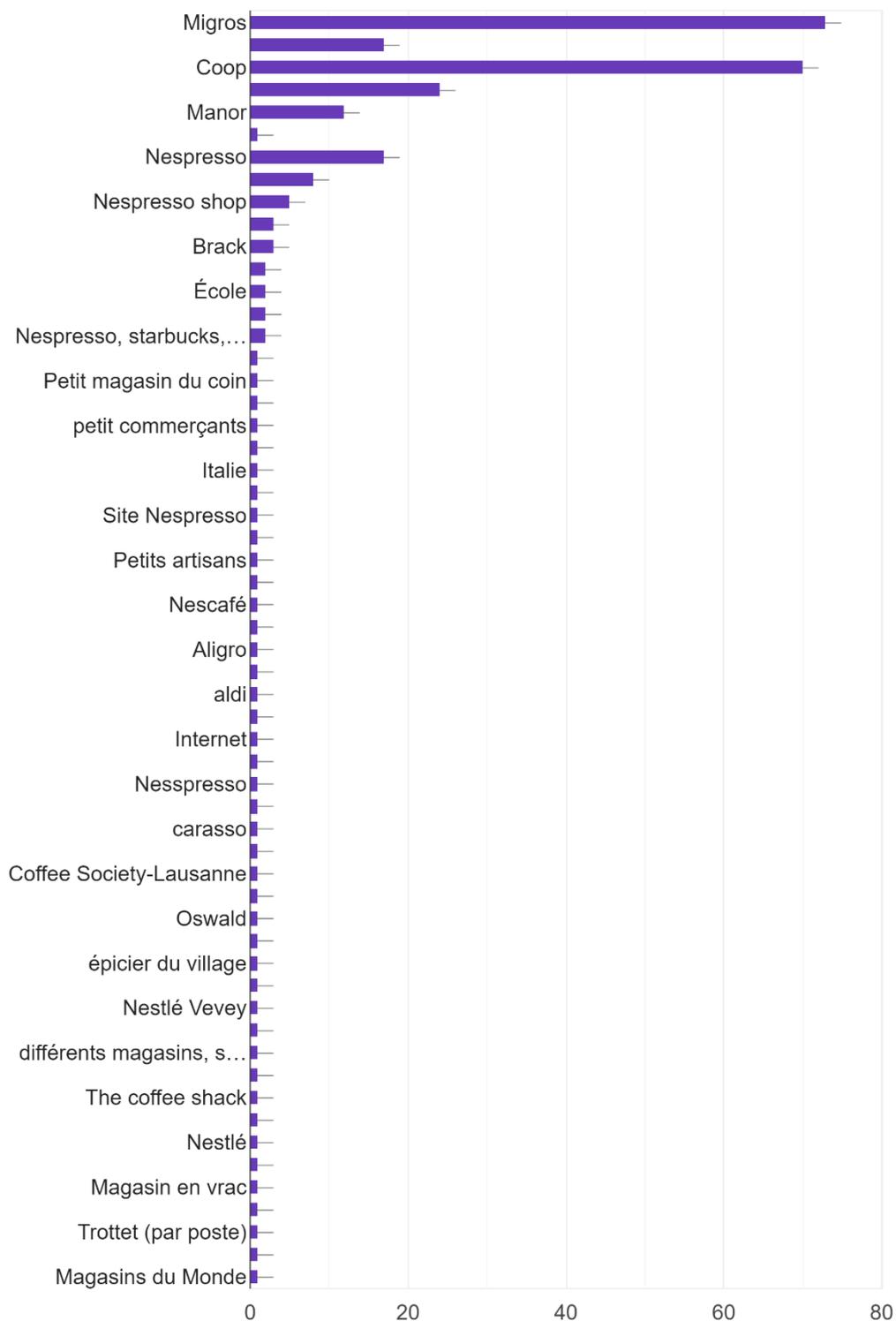


À quelle fréquence consommez-vous du café?  
170 réponses



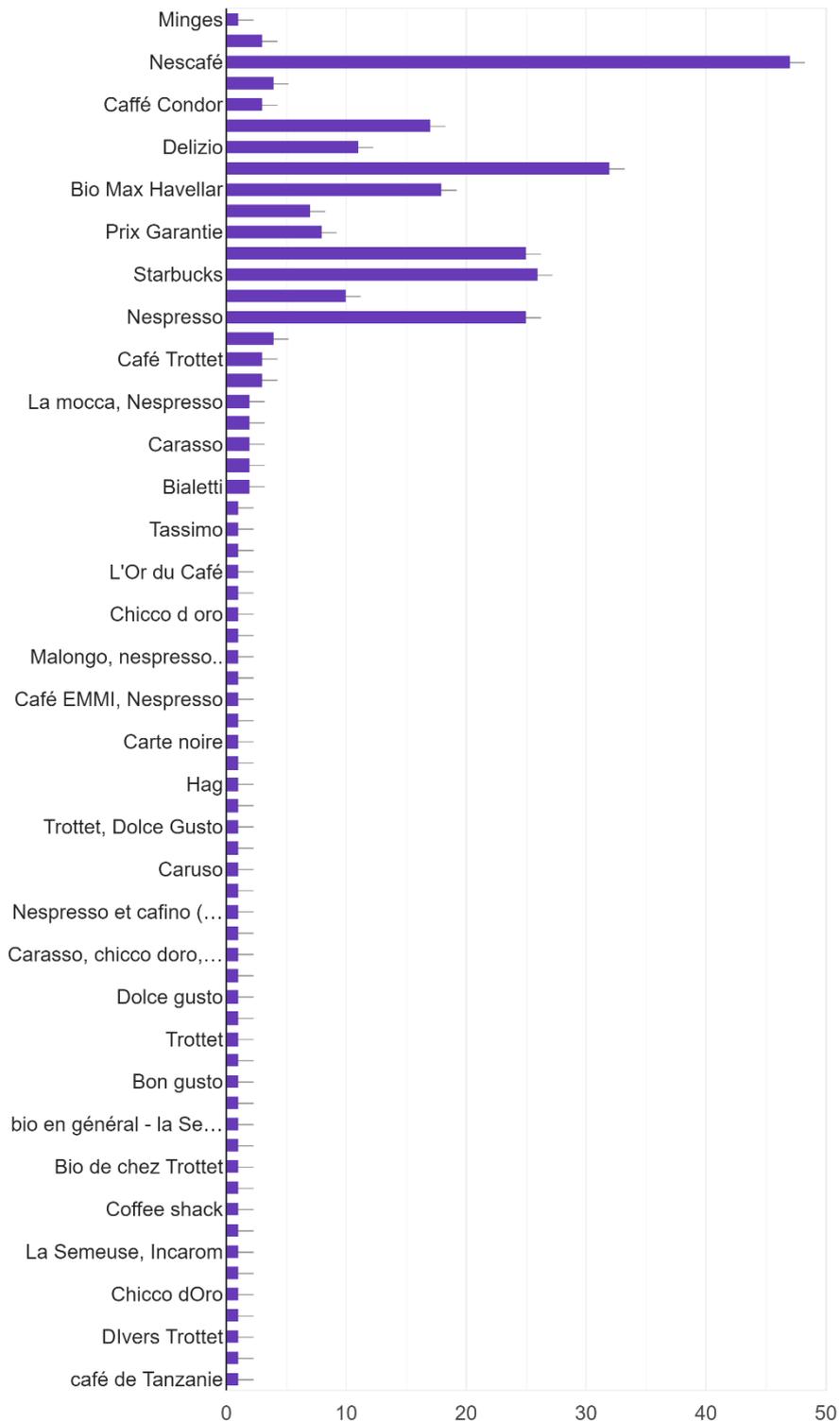
### Où achetez-vous votre café?

164 réponses



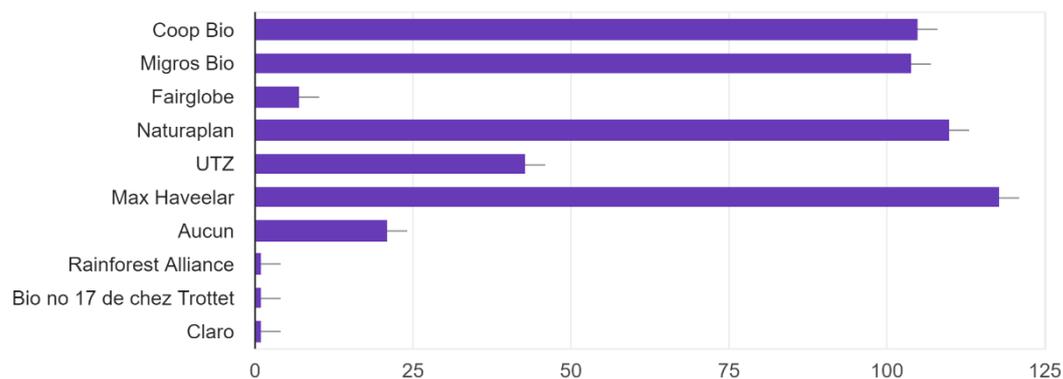
Veuillez choisir les marques de café que vous consommez

164 réponses



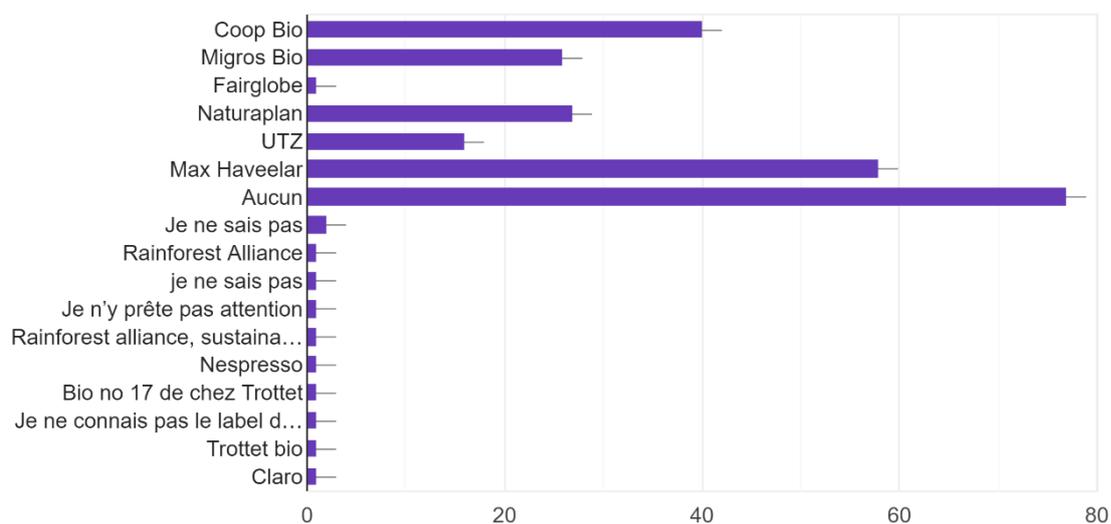
Veillez cocher les labels et certifications de café que vous connaissez

164 réponses



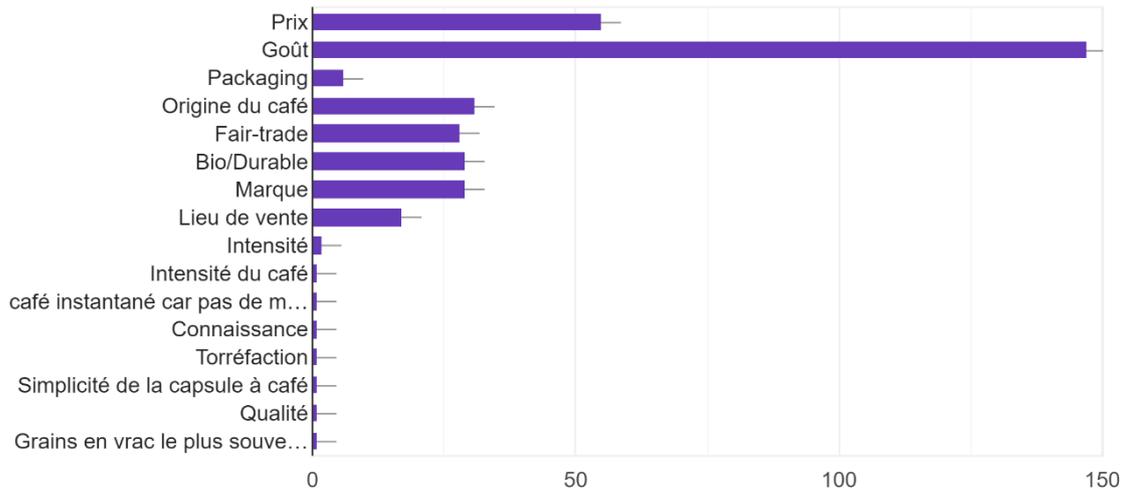
Veillez cocher les labels et certifications du café que vous achetez.

164 réponses



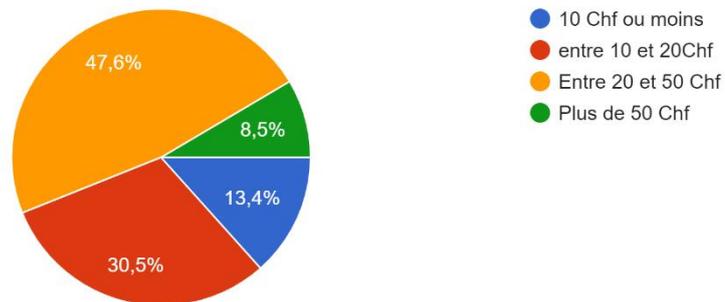
### Veillez choisir vos critères pour acheter le café ?

164 réponses

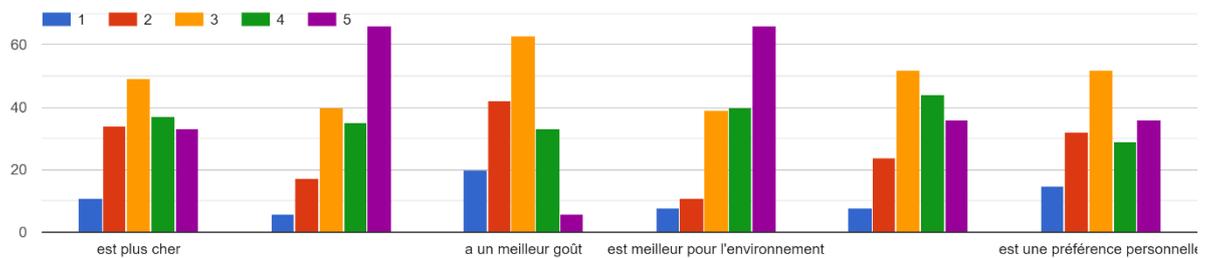


### Combien dépensez-vous pour le café par mois ?

164 réponses

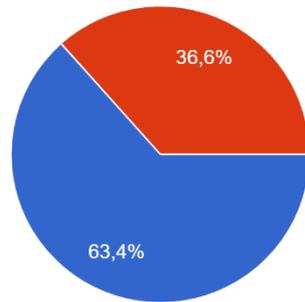


Pour vous le café durable (1= pas d'accord; 5= complètement d'accord)



### Veillez sélectionner votre sexe

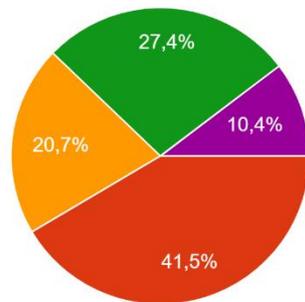
164 réponses



- Femme
- Homme
- Autre
- Je préfère ne pas répondre

### Veillez sélectionner votre âge

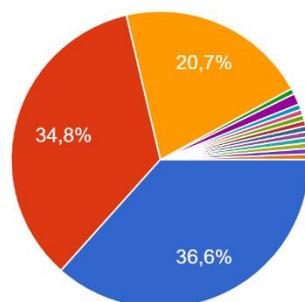
164 réponses



- Moins de 18
- Entre 18 et 29 ans
- Entre 30 et 44 ans
- entre 45 et 65
- 66 ans et plus

### Veillez sélectionner votre plus haut niveau de scolarité

164 réponses

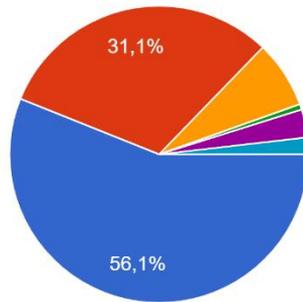


- maturité / CFC
- Bachelor
- Master
- Doctorat
- Diplôme ES
- Diplôme secondaire supérieur (niveau...)
- Bac
- Cfc et brevet fédéral

▲ 1/2 ▼

Veillez choisir le canton dans le quel vous habitez.

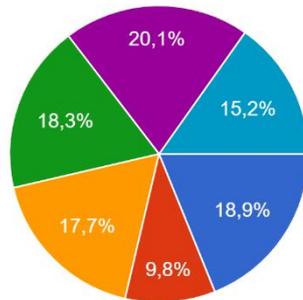
164 réponses



- Genève
- Vaud
- Valais
- Neuchâtel
- Fribourg
- Jura
- Canton de Berne ( District de Jura Bernois)

Veillez sélectionner la tranche de revenu du ménage

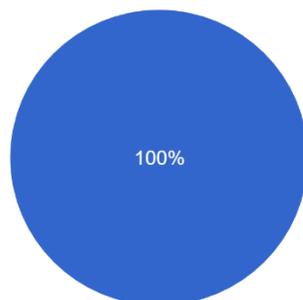
164 réponses



- Moins de 30 000 CHF
- 30 000 CHF 50 000CHF
- 50 000CHF- 80 000CHF
- 80 000 CHF- 120 000CHF
- Plus de 120 000 CHF
- Je préfère ne pas répondre

Do you live in the Swiss Romande?

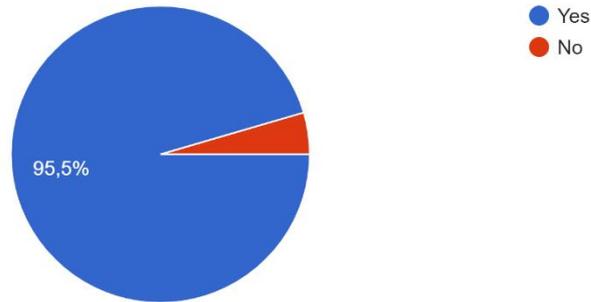
22 réponses



- Yes
- No

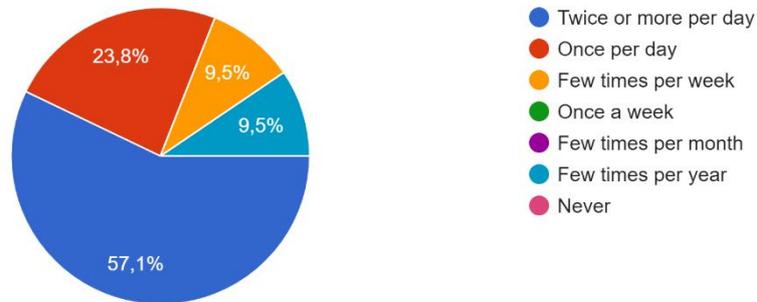
### Do you buy coffee?

22 réponses



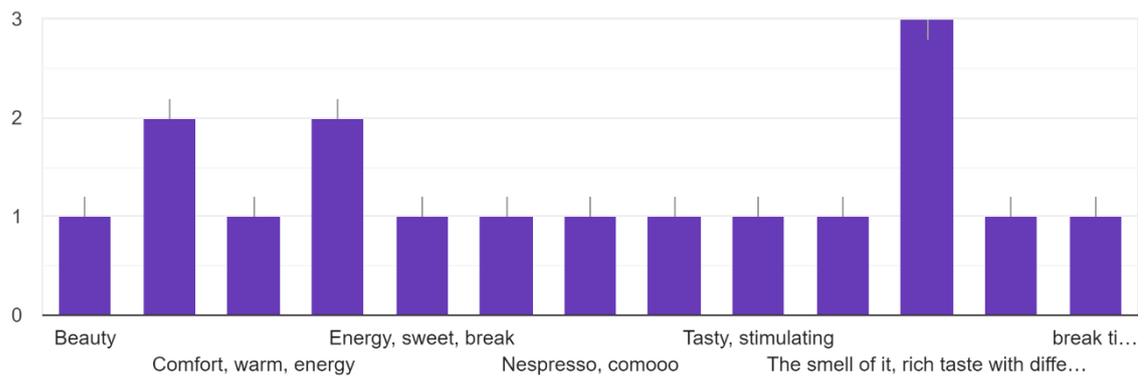
### How often do you drink coffee?

21 réponses



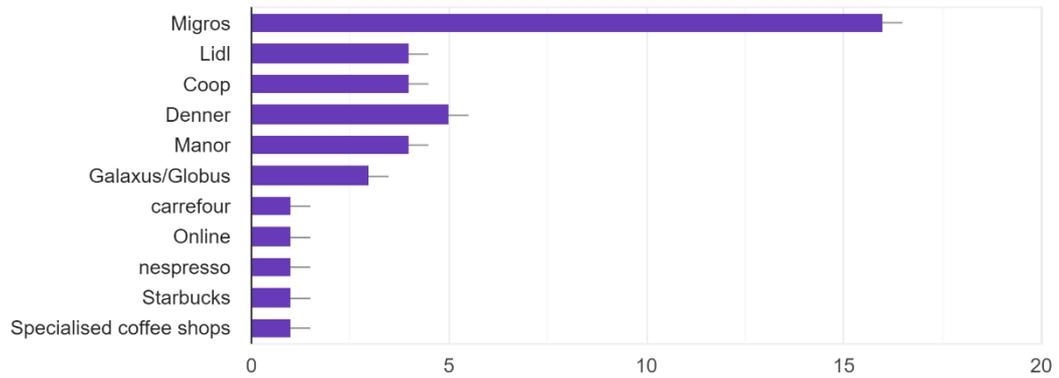
### What comes to your mind when you hear the word coffee?

17 réponses



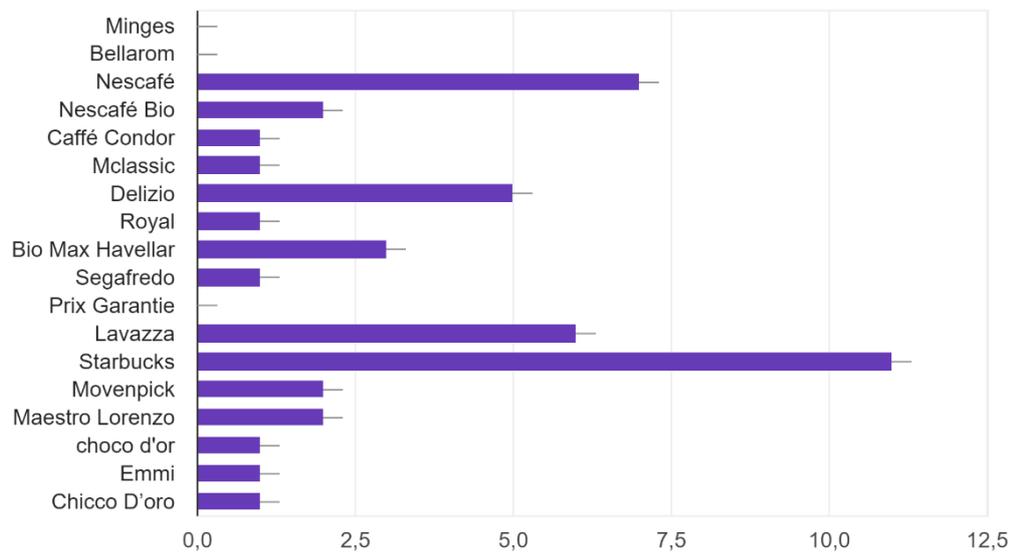
### Where do you buy your coffee?

21 réponses



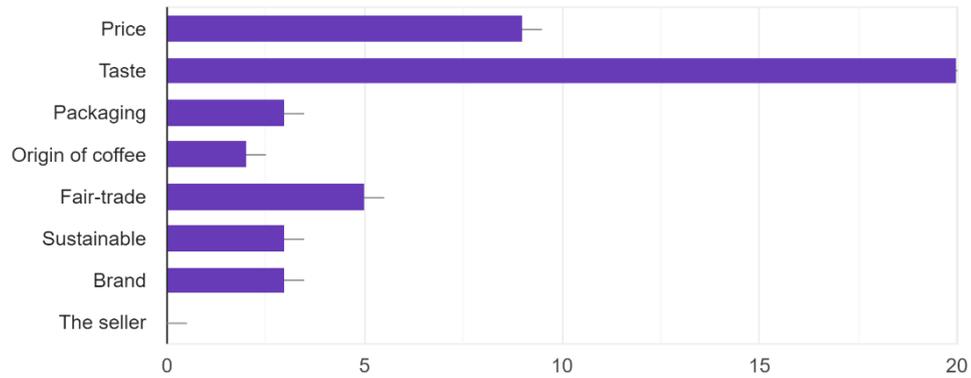
### Please choose the coffee brand you drink

21 réponses



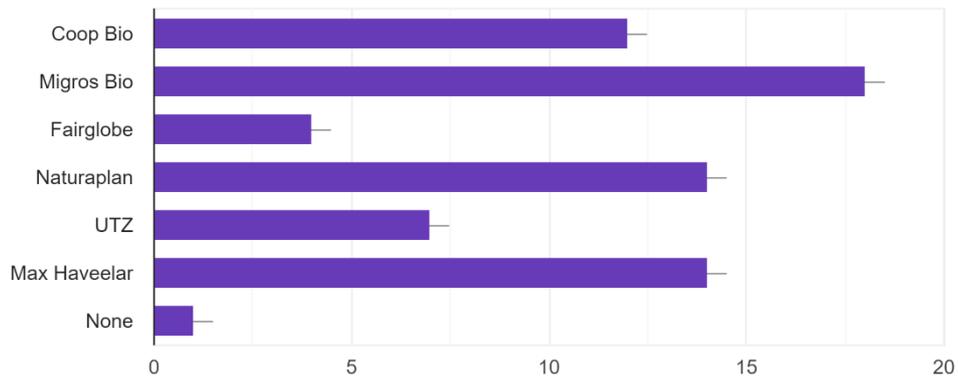
### What are the most important criteria when buying coffee?

21 réponses



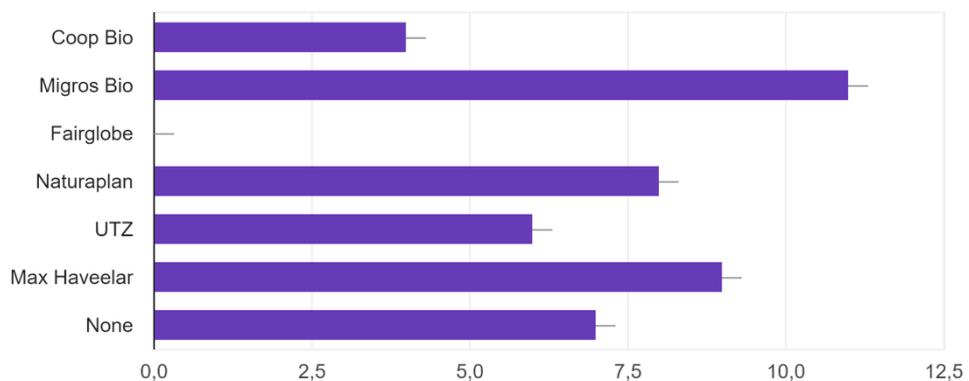
### Please select the coffee labels and certification you know

21 réponses



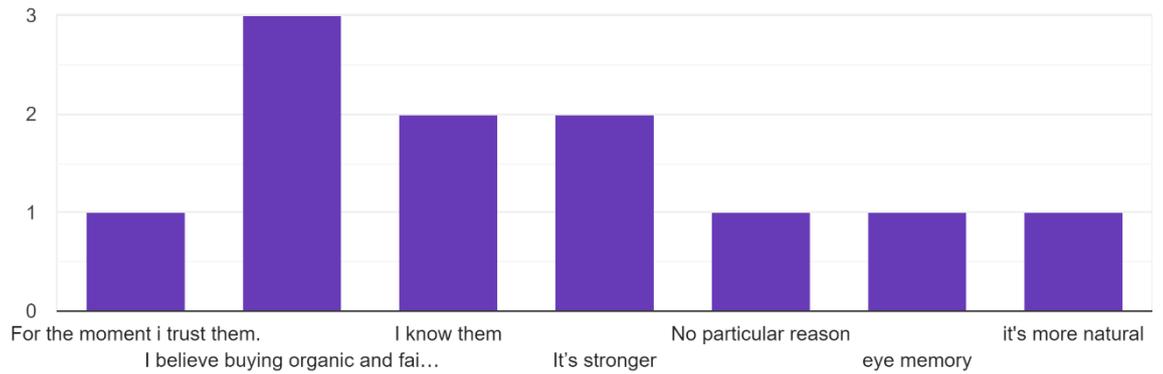
### Please select the coffee labels and certification you buy

21 réponses



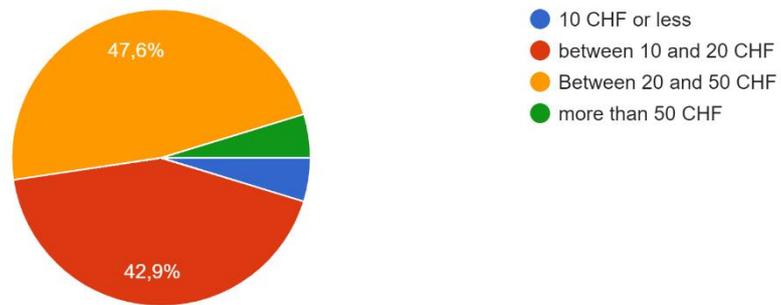
### Why do you buy this specific label(s)

11 réponses

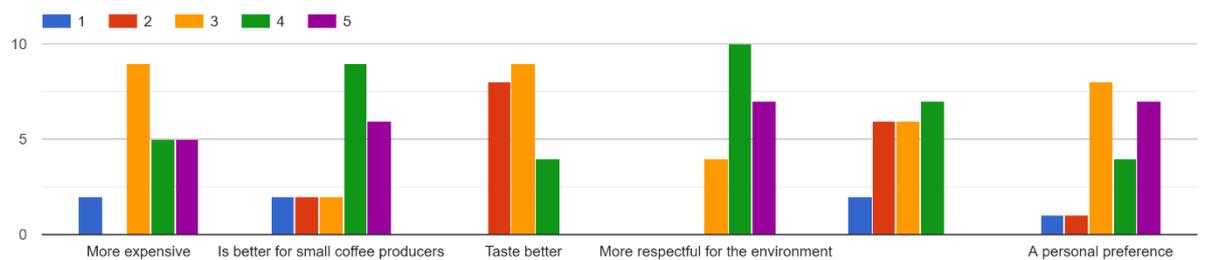


### How much do you spend on coffee per month?

21 réponses

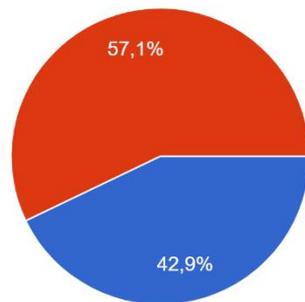


### For you sustainable coffee is (1= totally disagree; 5= totally agree)



### Please select your gender

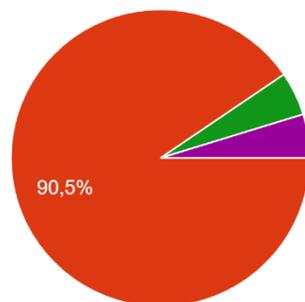
21 réponses



- Male
- Female
- Other
- I prefer not to respond

### What is your age?

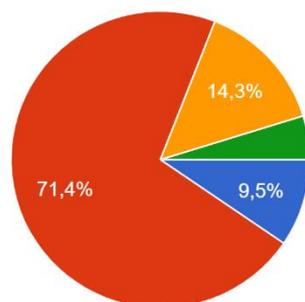
21 réponses



- Younger than 18 years old
- Between 18 and 29 years old
- Between 30 and 43 years old
- Between 44 and 65 years old
- Older than 65 years old

### What is your level of education

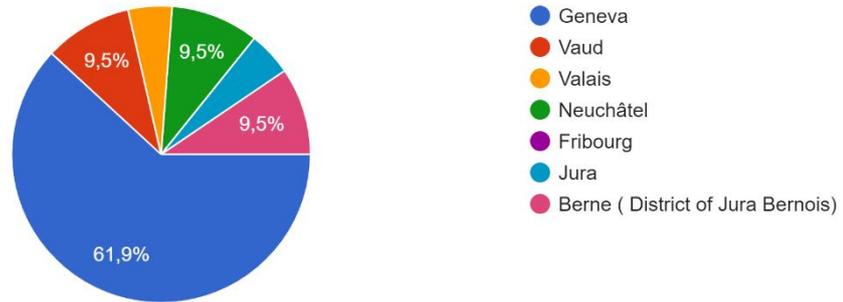
21 réponses



- Upper secondary education
- Bachelor level
- Master level
- Phd level
- I prefer not to respond

### In which canton do you live in?

21 réponses



### What is the total household income?

21 réponses

