

STUDY ON CHOCOLATE COSTS IN THE PERIOD 2018-2021

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Abstract: *Chocolate consumption has fallen in recent months due to the crisis in the cost of living in Europe and the United States, according to data recently released to the market by major chocolate companies. The price of chocolate will increase by up to 18% compared to the current level, due to the increase in the price of energy and raw materials, especially the main ingredient, cocoa. Raw materials account for 25% of the total cost of chocolate, and cocoa, the main ingredient, is twice as expensive as last year.*

Key words: *chocolate, cost, products, financial*

INTRODUCTION

Two thousand years ago, the cultivation of the cocoa tree became the primary activity in South America, where chocolate first originated.

The cocoa tree blooms all year long and can grow to a height of 8 meters in 12 years. Only 0.2% of the over 100,000 flowers in its bouquets bear fruit.

Christopher Columbus was the first explorer to come into contact with a cocoa tree in the New World between 1502 and 1503 [15]. To Europe, he introduced the cocoa bean. Herando Cortez, a conquistador, learned that the Aztec emperor Montezuma enjoyed drinking a beverage made from cacao seeds in 1519, but Europeans found it to be extremely bitter. The most well-known dish the Spanish tried to alter the flavor was hot chocolate with vanilla and cinnamon [14].

Although Charles V's Spanish first sought to keep cocoa a secret after discovering it, stories soon spread as Spanish monks employed by the monarch to manufacture cacao informed Prince Philip about it. However, Spain maintained its monopoly on the formula for nearly a century. British ships twice captured Spanish ships carrying cocoa beans without appreciating the significance of the cargo, first in 1579 and then again in 1587. The Spanish ship was mistakenly believed to be transporting sheep dung by the English in 1579.

Although it became more widespread in some areas, chocolate remained a luxury good enjoyed only by the wealthy. Although Charles V's Spanish first sought to keep cocoa a secret after discovering it, stories soon spread as Spanish monks employed by the monarch to manufacture cacao informed Prince Philip about it. However, Spain maintained its monopoly on the formula for nearly a century. British ships twice captured Spanish ships carrying cocoa beans without appreciating the significance of the cargo, first in 1579 and then again in 1587. The Spanish ship was mistakenly believed to be transporting sheep dung by the English in 1579 [5].

Although it became more widespread in some areas, chocolate remained a luxury good enjoyed only by the wealthy [7]. In 1780, they constructed a chocolate factory with Dr. James Baker, where the renowned Baker's chocolate was created. The prices of products on the chocolate market vary depending on the segment they are part of and also depending on the place where they are sold. Thus, the same product sold in a supermarket or hypermarket will have a lower price than the same product sold in small stores.

The premium segment, which includes brands such as Kandia Moments, Poiana Senzatii, Heidi, Milka, Anidor, has prices between 3 and 5 RON on average.

Tablets such as Poiana, Kandia, Primola belong to the mainstream segment and can be found at prices in the 2-3 ron range. The low-end segment, which includes Novatini, Laura, Africana tablets, has prices up to a maximum of 2 RON.

Prices for cocoa were able to decline due to developments and innovations in the 19th century, including the cocoa press. As a result, chocolate became a commodity available to more people than simply the wealthy[8]. Conrad Van Houten created the cocoa press; his father had previously combined cocoa butter and powder to improve the consistency of the final product.

Chocolate manufacturing is a prosperous business for large companies that make very high profits. While the big companies are in constant competition to obtain the highest market shares and profits, millions of cocoa farmers bear the consequences by receiving less and less money for their goods. In 2018, the global chocolate industry had net sales of approximately \$80 billion, a figure that is expected to reach \$88 billion in 2020. Within this chain, most of the money is made after the beans have reached the middlemen. At the same time, many cocoa farmers and workers have to live on less than \$1.25 a day, which is far below the absolute poverty line. Cocoa farmers today receive about 6% of the price that consumers in rich countries pay for chocolate. In the 80s, their share was almost three times higher, about 16%.

MATERIALS AND METHODS

Establishing the article's aim, choosing and studying the specialized literature and statistical reports, evaluating and interpreting the data, and drawing conclusions were the stages that went into its production.

The article's authors employed statistical observation as a research technique to carry out the suggested purpose. The data in the article is the outcome of a questionnaire about chocolate intake that was given to 60 people, followed by analysis and interpretation. To show the development of financial performance indicators, graphics were employed.

RESEARCH RESULTS

From the cocoa tree to your preferred dessert is a long journey. View the cocoa bean's appearance, the process used to make it, and the ingredients it contains. Two-thirds of the world's cocoa production comes from West Africa, and the process begins with the removal of the beans from the well-ripened fruits of the cocoa tree [11]. The beans are allowed to ferment for a few days, during which time they develop the distinctive flavor and brown color of cocoa [9]. They are then swiftly dried, typically outside in the sun, and are then prepared to be shipped to the companies that make chocolate.

The beans taken from the fully developed fruits of the cocoa tree are where the history of chocolate begins. The berries are allowed to ferment for 7 days before being sun-dried. Following their delivery, they are cleaned of contaminants, roasted, and peeled in chocolate factories. The beans become a paste when crushed and combined because of their high fat content; this paste is known as cocoa liquor (although it does not contain alcohol).

Dark chocolate, commonly known as cocoa and cocoa butter with sugar, is made from these ingredients. It has at least 35% cocoa by weight, though the exact percentage varies by maker. Depending on how bitter the chosen cocoa variety is, different amounts of sugar are needed.

According to the mandated rules, milk chocolate must have a minimum of 12% milk solids and 25% cocoa solids (generally milk powder or condensed milk) [12]. Daniel Peter, a Swissman, introduced the first milk chocolate in 1875.

White chocolate is chocolate produced with milk, sugar, vanilla, and other flavors in addition to cocoa butter.

It has a tint that is near to white because it doesn't contain cocoa powder or other cocoa preparations. We must first clarify that not all forms of chocolate are healthy for the body before discussing the advantages of chocolate [6]. Even though dark chocolate is less pleasant than milk chocolate, it is the healthiest for the body since it contains the beneficial compounds that come from cocoa. There are many health-promoting ingredients in dark chocolate, but antioxidants including vitamins, minerals, flavonoids, and polyphenols stand out among them. There are also a number of stimulants. Antioxidants fight off free radicals, harmful compounds that are constantly created at the cellular level and contribute to the prevention of disease, whereas stimulants promote a general sense of well-being [14].

Retailers' sales of chocolate in Romania have increased by 11%, hitting a record-breaking high of 4.1 billion lei in 2020. The output of chocolate fell in the pandemic year, reaching 640 million lei, even while demand for it is rising on the Romanian market. As a result, the market for chocolate experienced a 10.7% decline in production and consumption in 2020, reaching 4.8 billion lei, compared to 2019 [4].

With a turnover of 141 million lei (22.3% of production in Romania), Kandia Dulce SA overtook Heidi Chocolat SA as the market leader[10]. Rap Confectionery SRL, Mueller & Prietenii, Heidi Chocolat SA, and Marco Polo VE SRL were next in line (almost 20 million lei). With sales of 933 million lei (22.6% of the market) in the sales segment in 2020, Nestle România SRL leads the ranking of distributors of chocolate goods, followed by Ferrero Romania SRL (880 billion lei), Almira Trade SRL (166.6 million lei), Pfeifer & Langen Romania SRL (166 million lei), and Roshen One SRL. Nestle România SRL only left the production segment of the Romanian market, but not the sales segment (123 million lei).

The percentage of enterprises in the chocolate sector that still owe money to suppliers and the Romanian government reached its highest point ever in 2020, up to a total of 54% and 625 million lei [1]. Arrears with suppliers had the biggest increase of these, rising by 180% to a total of 192 million lei. A Romanian consumed 206 g of chocolate, candies, crap, and other sugary items monthly on average in 2020, 3% more than in 2019, according to statistics from the National Institute of Statistics [2]. According to the most recent INS statistics, the average monthly consumption per person was 208 g at the end of the first semester of 2021, down from 224 g in the first quarter [3]. In 2020, the average monthly consumption of chocolate, candies, crap, and other sugary items will climb to 206 g from the 2016 average of 157 g.

Questionnaire

1.Are you a chocolate consumer?

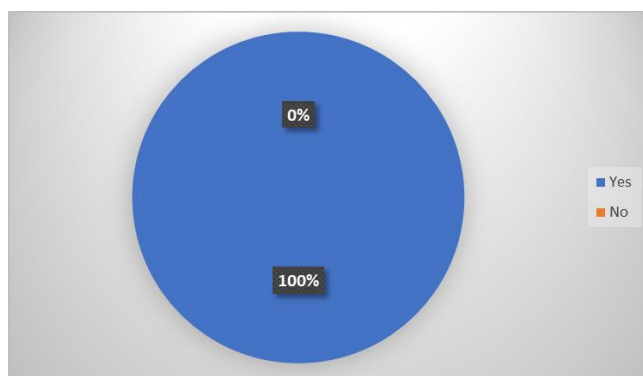


Figure 1. Response Q1

All respondents to the study identified as chocolate consumers.

2. How much chocolate do you consume in a week?

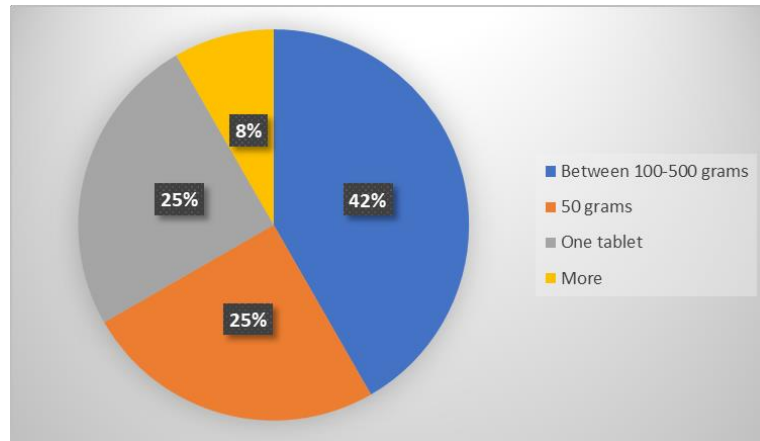


Figure 2. Response Q2

Between 100 and 500 grams of chocolate are consumed daily by 42% of chocolate users.

3. What will determine you to choose a particular brand of chocolate?

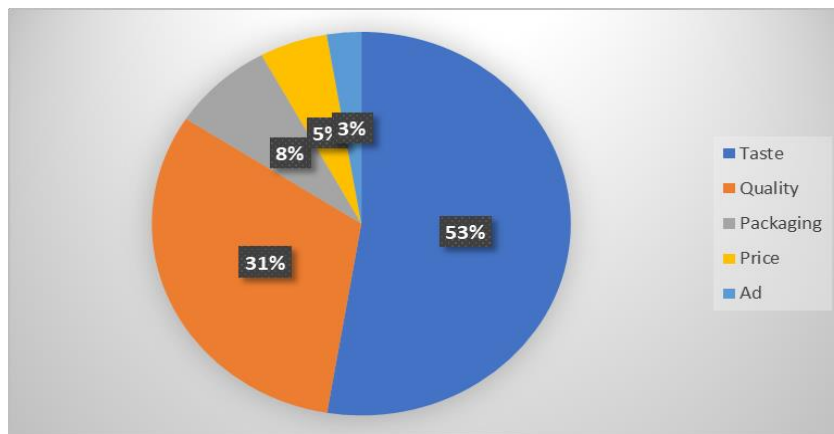


Figure 3. Response Q3

53% of them select a chocolate brand based on flavor preference.

4. Which brand of chocolate do you prefer?

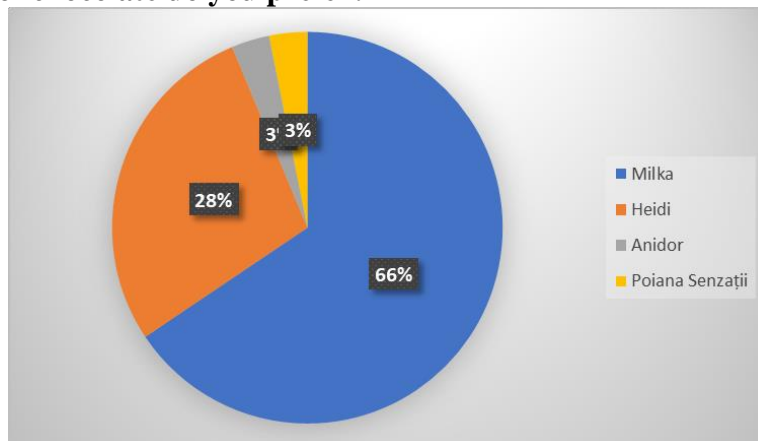


Figure 4. Response Q4

66% of people select Milka brand chocolate for consumption.

5. How do you get used to consume chocolate?

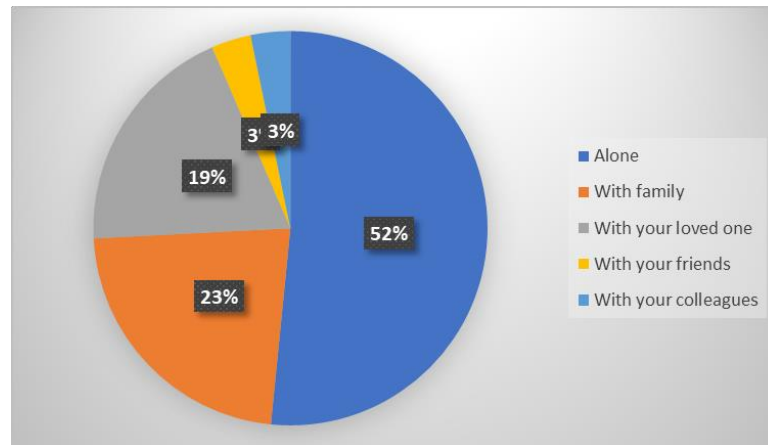


Figure 5. Response Q5

Individual chocolate consumers make up the majority of chocolate.

6. How much money (RON) do you used to pay for a chocolate?

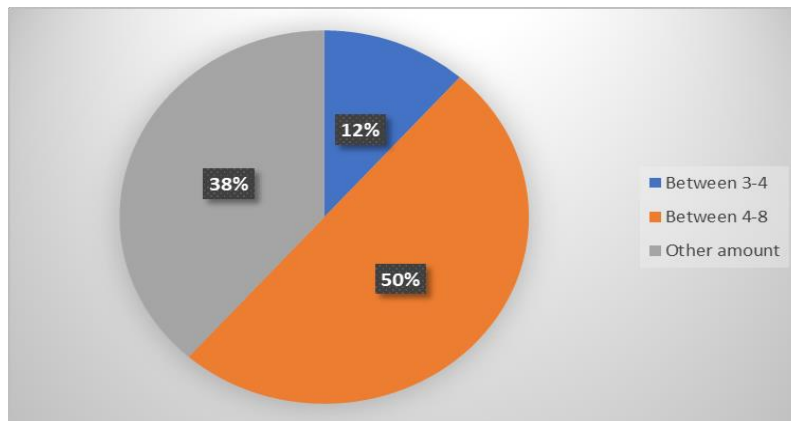


Figure 6. Response Q6

50% of those surveyed said they would rather pay 4-8 lei for chocolate.

7. What type of chocolate do you like?

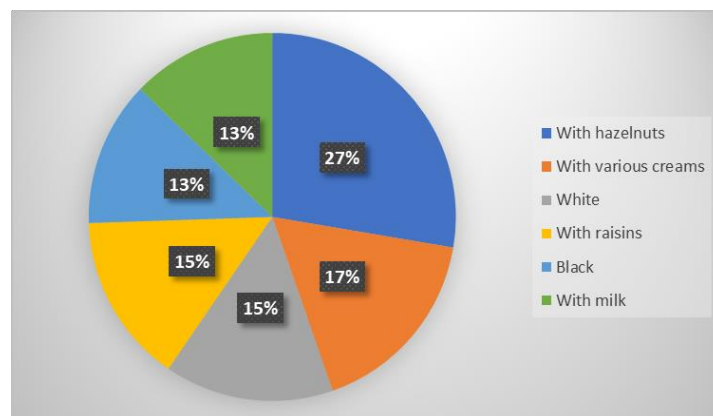


Figure 7. Response Q7

Hazelnut chocolate is preferred by 27% of those polled.

8. Do you recommend your favorite chocolate to other people?

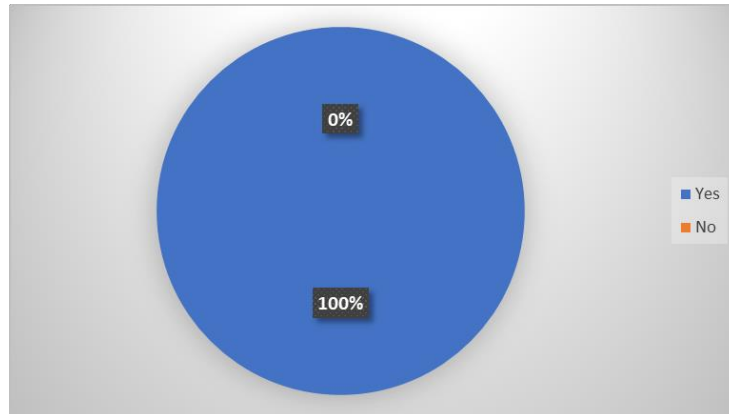


Figure 8. Response Q8

Everyone surveyed says that other people should try chocolate.

9. Gender:

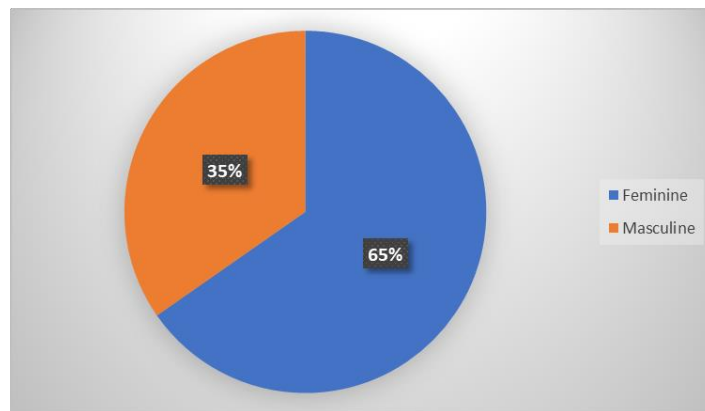


Figure 9. Gender of the respondents

The survey shows that women consume more chocolate than men do.

10. What age category do you fall into?

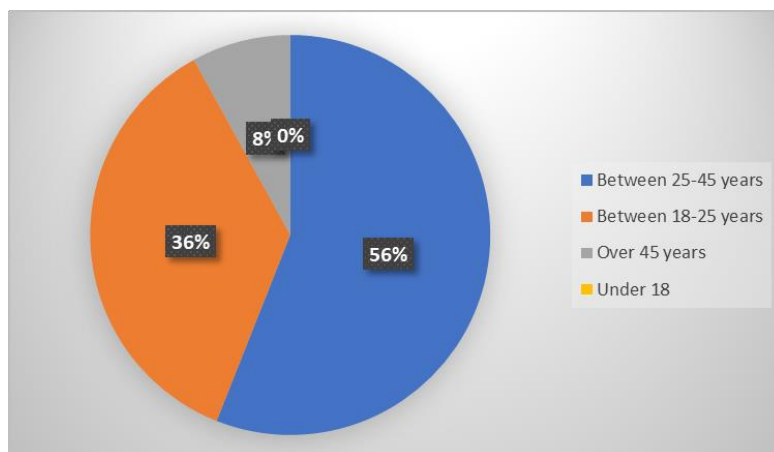


Figure 10. Response Q10

The majority of chocolate consumers are between the ages of 25 and 45.

11. Where do you live?

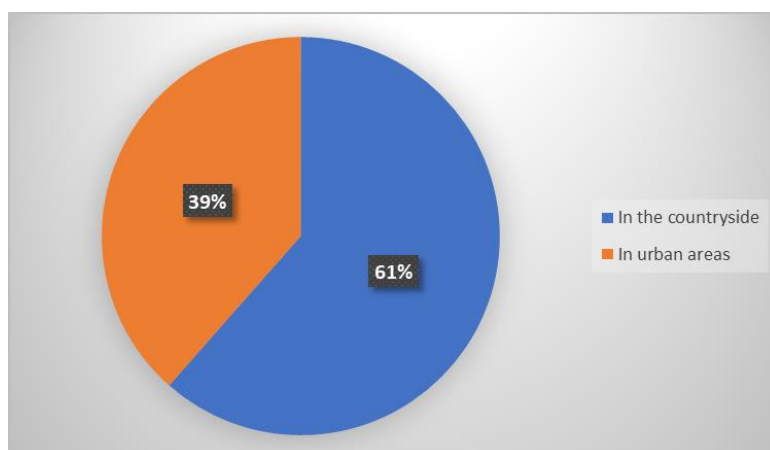


Figure 11. Response Q11

Most of them live in the country.

12. What income category do you fall into?

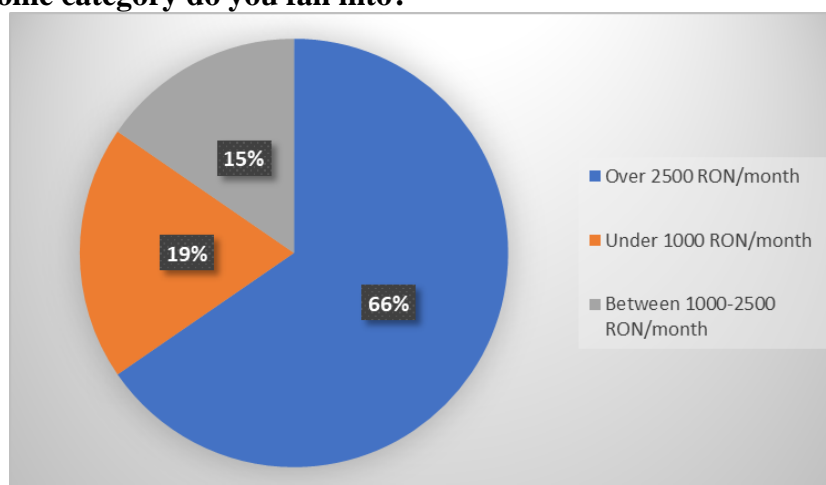


Figure 12. Response Q12

66% of respondents indicated that they make 2500 RON per month in compensation.

CONCLUSIONS

All of the world's kitchens utilize chocolate because it is an elegant, straightforward, and delectable treat that has been used for centuries. Happiness is produced by chocolate, but it also has costs. Care, attention, and additional resources are required for the preparation, preparation, and storage processes. As we can see, chocolate consumption in Romania is strong, and as a result, major chocolate companies have significant shelf space and are engaged in a fierce race for supremacy. Every year, more grams of chocolate are consumed than the year before. Certainly, the completed questionnaire shows that Romanians adore chocolate, whether it is eaten raw or baked. Regarding the urban and rural distribution of the

people who were the subject of the research regarding chocolate consumption, the results showed a share of 61% consumers from the urban environment. The research that is the subject of this work has highlighted the fact that the highest percentage of chocolate consumers is the one with vomiting between 25-45 years.

From the point of view of the amounts allocated for the consumption of chocolate, the result of the current research revealed the fact that 50% of the respondents spend between 4 and 8 lei for a bar of chocolate.

Low purchasing power appears to shape purchasing behavior in this category. If we look at the Retail Zoom data for segmentation by quantity, we see that small packages, up to 149 grams, have a total share of about 60% in value, but only 45% in volume. Large packages, from 150 grams and up, accumulate less in value (40%) and more in volume (55%). So customers tend to buy larger quantities to support a lower unit price. The same conclusion can be drawn from sales dynamics. The largest increase in value, almost 30% in August 2021 - July 2022 compared to the previous 12 months, is recorded for packages over 200 grams. In terms of volume, the sales dynamics are not accentuated, the only notable increase being that of almost 10%, in the 100-149 gram group, which also increased in value by 13%. This middle-of-the-road group likely became more sought-after as shoppers tried to "reconcile the goat of quantity with the cabbage of inflation".

"In the last semester, the market had fluctuating developments on a monthly basis and there is a clear disconnection between the volume evolution and the value evolution, under the influence of numerous cost increases and inflation. In the coming months, once the weather cools down, energy prices and the new and more pessimistic inflation targets estimated by the BNR will have an effect on buyers' willingness to spend," Claudiu Lazăr, Alka Brand Manager, tells us. He points out that the company he represents remains optimistic, "having the advantage of local production capacity and a strong brand in terms of quality, distribution and equity" [16]. While the profits of multinational chocolate companies have increased since 1980, the world market price for cocoa beans has halved (adjusting for inflation) [17].

Another aspect of this problem is that cocoa farmers receive only a fraction of the world market price for cocoa beans, due to local trade structures, taxes and also due to the quality of the beans. For example, in the last ten years the growers of the Ivory Coast obtained only 40-50% of the world market price for their grains. They are not well organized and the lack of information about market trends for cocoa prices forces them to sell their cocoa beans at prices imposed by intermediaries. In addition, farmers' income insecurity is affected by cocoa price changes. Price volatility often stems from changes in supply volume, influenced by crop diseases, pest damage, adverse weather conditions such as drought, or political instability and turbulence in producing countries. While good seasons bring good harvests to the main cocoa-producing countries, but the surplus harvest leads to lower prices, poor harvests due to crop diseases or unfavorable weather conditions in some important regions lead to higher prices. Price changes can also be influenced by other factors such as food speculation. For speculators, volatile prices are profitable as well as futures trading that can bring huge profits. Cocoa traders can mitigate price changes by storing cocoa beans and controlling the volume of market sales. Many times, growers are forced to sell their cocoa beans immediately after harvest due to poor living conditions, urgent need for money and lack of storage facilities.

The consequences of price volatility together with rising production costs means economic insecurity and poverty for millions of cocoa producers. Despite predictions that demand for cocoa will increase by almost 20% in the coming years, increasing the income of chocolate companies, at the moment many growers cannot cover their living costs. With

limited income and lack of information on market developments, cocoa farmers and their families stand to lose in this lucrative cocoa and chocolate industry[17].The low and uncertain incomes of the cultivators cause a series of serious problems at the social and environmental level. They no longer invest in their plantations, they no longer pay workers' wages, they can no longer offer workers proper working conditions, and in the worst cases they tend to exploit children through labor. Hoping to increase their income, they use more land in cocoa production, often to the detriment of sustainable, ecological and diversified agriculture.

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