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**A PREFERÊNCIA DE COMPRA DE PRODUTOS ORGÂNICOS CONSIDERANDO
DIVERSIFICAÇÃO E ESPECIALIZAÇÃO DA AGRICULTURA FAMILIAR**

**THE PREFERENCE TO PURCHASE ORGANIC PRODUCTS CONSIDERING
DIVERSIFICATION AND SPECIALIZATION OF FAMILY FARMING**

[TRADUÇÃO INGLESA]

ALVARO GUILHERME ALVES

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Dissertation presented in partial fulfilment of the requirements for the degree of Master of Science in Administration in the Department of Administration, Western Paraná State University. Dissertation Supervisor: Dr Geysler Rogis Flor Bertolini

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ALVARO GUILHERME ALVES

A preferência de compra de produtos orgânicos considerando diversificação e especialização da agricultura familiar

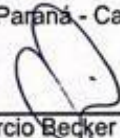
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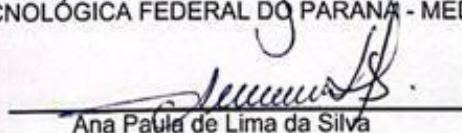
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Universidade Estadual do Oeste do Paraná - Campus de Cascavel (UNIOESTE)


Márcio Becker

UNIVERSIDADE TECNOLÓGICA FEDERAL DO PARANÁ - MEDIANEIRA (UTFPR)


Ana Paula de Lima da Silva

Universidade Paranaense - UNIPAR (UNIPAR)

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DEDICATION

I dedicate this dissertation primarily to Jehovah God because without him nothing would be possible.

To my parents and siblings for their love, affection, dedication and care throughout my life.

To my wife with all my love and affection.

To the teachers who guided my path with wisdom and inspiration, especially my advisor Professor Geysler, with whom I shared my doubts and anxieties.

To the friends who shared laughter, challenges and achievements along this journey.

This work is dedicated to everyone who contributed to my academic and personal growth.

May this be just the beginning of a journey full of discoveries and achievements.

RESUMO

Alves. A. G. (2023) A preferência de compra de produtos orgânicos considerando diversificação e especialização da agricultura familiar. Universidade Estadual do Oeste do Paraná. Programa de Pós-Graduação em Administração – PPGAdm – Cascavel, PR, Brasil.

A agricultura familiar é a espinha dorsal de muitas comunidades ao redor do mundo, representando uma forma tradicional e sustentável de produção de alimentos. Dois caminhos estratégicos destacam-se nesse contexto: a especialização, com foco e cultivo em atividade específicas, e a diversificação que abrange a ampliação para diferentes setores agrícolas. Nesta dualidade, a agricultura familiar encontra meios de otimizar recursos, aumentar a resiliência a atender as demandas em constante evolução no mercado. O objetivo desse estudo foi analisar a preferência de compra produtos orgânicos considerando a diversificação e especialização da agricultura familiar da cidade de Corbélia-PR. Para tal, foi realizada uma pesquisa através de um questionário por meio de levantamento amostral. A partir de estudo foi possível identificar que levando em consideração fatores que influenciam os hábitos de consumo como, renda, saúde, estilo de vida, meio ambiente e conhecimento na hora da compra de produtos orgânicos, a especialização é a alternativa mais favorável ao produtor de produtos orgânicos, pois por serem especializados em um só tipo de produção os alimentos apresentam maior qualidade, podendo atender demandas mais específicas e com isso aumentam suas oportunidades de mercado.

Palavras-chave: Hábitos de consumo; Consumo Sustentável; Agricultura Familiar; Sustentabilidade;

ABSTRACT

Alves, A. G. (2023) The preference for the purchase of organic products, considering diversification and specialization of family farming. State University of Western Paraná. Graduate Program in Business Administration – PPGAdm – Cascavel, PR, Brazil.

Family farming is the backbone of many communities around the world, representing a traditional and sustainable way of producing food. Two strategic paths stand out in this context: specialization, with a focus on and cultivation in specific activities, and diversification, which includes expansion to different agricultural sectors. In this duality, family farming finds ways to optimize resources, increase resilience and meet the constantly evolving demands in the market. The objective of this study was to analyze the preference for purchasing organic products considering the diversification and specialization of family farming in the city of Corbélia-PR. To this end, a survey was carried out through a questionnaire by means of a sample survey. From the study it was possible to identify that taking into account factors that influence consumption habits such as income, health, lifestyle, environment and knowledge when buying organic products, specialization is the most favorable alternative to the producer of organic products, because by being specialized in only one type of production, food has higher quality, being able to meet more specific demands and thus increase their market opportunities.

Keywords: Consumption Habits; Sustainable Consumption; Family Farming; Sustainability;

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1 INTRODUCTION

Family farming, rooted in the traditions of the land, represents the vital foundation of many communities around the world and is a practice carried out by groups of small farmers who develop on small rural properties, where production and labor are carried out by their own family. Family farming has always had polyculture as its basic characteristic, constituting over time a diversity of social forms, making it difficult to establish a standard model for this type of production, characterized by the intertwining of family production. (SMITH; Hespanhol 2023)

The search for sustainability and prosperity finds a powerful ally in the diversification of production, whether from public policies or other institutional or individual movements, are desirable, as long as they create positive impacts on the quality of life of the affected families, generating income possibilities that will expand access to livelihoods, creating positive consequences on the standard of living of the families and regions targeted by the initiatives. encouraging sustainable consumption (Fontoura; Silva; Silva; I pontificate; 2022).

Specialization comes as a way to improve the sustainable development of family farming, providing conditions to obtain gains due to scale, better use of processing, storage and less intense transportation facilities, and cost reduction, and cost reduction, for these reasons producers seek specialization (Hansel; Bertolini; Brook; 2021).

To consume sustainably is to assume an environmentally friendly behavior, a more conscious and intelligent consumption, to explore correctly and sustainably, to enjoy these goods without compromising future generations. (Meadow; Martin; 2020). Society's consumption habits have changed over time, showing itself to be increasingly conscious in some aspects, as variables such as health and environment are being consumption guides. Large corporations are already showing a greater concern with their production processes, because consumers no longer buy what they see in front of them.

Considering the specialization and diversification of family farming and consumption habits, this work will analyze whether the population values the consumption of organic products and will consider what is the best option between diversification and specialization for the organic food producer.

1.1 RESEARCH PROBLEM

1.1.1 RESEARCH QUESTION

What is the relationship on the preference for the purchase of sustainable products considering diversification and specialization of family farming in the Municipality of Corbélia-PR.

1.2 OBJECTIVES

1.2.1 General

To analyze the preference for purchasing organic products considering the diversification and specialization of family farming in the city of Corbélia-PR.

1.2.2 Specific

- To identify in the literature the variables related to diversification and specialization of family farming production.
- To analyze the orientation towards sustainability in the consumption of the residents of Corbélia-PR
- Analyze, based on the orientation towards sustainability in the consumption of the respondents, the orientation for farmers in relation to diversification or specialization.

1.3 JUSTIFICATION AND CONTRIBUTION OF THE TECHNICAL PRODUCTION

Family farming is of singular importance because more than 80% of the food produced comes from family farms. The production and management of food by family farming respects biodiversity and natural resources, providing a diversified and specialized production of higher quality, standing out for its sustainability.

Diversification is characterised by a wide range of products, while specialisation has only one focus. Both forms are presented as economic strategies to keep the producer

in financial and productive balance. The sustainable consumption of products from diversification and specialization is increasingly becoming a consumption habit, due to the population's interest in seeking food of sustainable origin, aiming at social, environmental, economic and innovative benefits.

The investment of family farming in sustainable consumption plays an important role in the economic development of the municipality, as it contributes to the local economy that is reinforced by the community itself, considering that consumers seek fresh products without the interference of pesticides and preservatives.

The preference for products of organic origin comes from the concern for health and the environment. Consumers of these products seek sustainable consumption without harming the environment to produce food, we increasingly see these healthier consumption habits enter our consumption, large companies have already modified their product portfolios seeking to serve this type of audience.

1.4 STRUCTURE OF THE DISSERTATION

Chapter 1, which includes the introduction of this study, presents a brief description of the theme that will be addressed in the following chapters, as well as sheds light on the research problem that was chosen to support the development of this study, and also presents the justifications and objectives that guide its realization.

Chapter 2 presents the theoretical review that supports the development of the work and the general and specific objectives. The review contributed to delimit the scope of the study, since the theme of family farming is very broad.

Chapter 3 presents the research method and techniques for the technical production of this work. Thus, the research design, the procedures for data collection and analysis, the professional competencies and skills employed to solve the research problem, and the limitations of the methods and techniques used are clarified.

Chapter 4 presents the analyses of the collected data, in each subtitle the data presented in the form of bar graphs are described, compared with the literature used in the theoretical framework.

Chapter 5 presents the results of the research.

Chapter 6 presents the final considerations, with the limitations found in the research and suggestions for future work.

2 THEORETICAL AND PRACTICAL REFERENCES

2.1 SUSTAINABILITY

In 1972, at the United Nations Conference on the Environment (UNCHE), held in Stockholm, the term sustainability emerged, which can be conceptualized as the ability to meet present needs without compromising the ability of future generations to meet their own needs (Him; Bruntland, 1987). For Veiga (2008) In other words, it is a principle that seeks to balance the protection and preservation of natural resources, the promotion of economic and social development, and the maintenance of people's well-being.

In 1992, at the Conference on Environment and Development, held in Rio de Janeiro, Brazil, the concept of sustainable development was effectively incorporated as a guiding principle for future actions and, together with the elaboration of Agenda 21, the commitment of countries to act cooperatively and harmoniously in the search for sustainable development was signed (UN, 2022).

Sustainability creates and ensures that humans and nature can coexist in a harmonious productive way, fulfilling social, economic, and environmental requirements of future generations (Moreno, Dutra, Junges, and Mussi, 2018).

The lenses for understanding the term "sustainability" and the construction of meaning on the subject change according to space-time, narrowing and, consequently, transforming the way of dealing with the externalities generated by organizations (Dovers, 1996).

Sustainability encompasses different areas, such as the environment, the economy, society, and culture, and seeks to establish a balance between these aspects to ensure a viable and healthy future for the next generations. Jennings e Zandbergen (1995) They point out that "different interpretations of sustainability will be developed in each field, and the interpretations will be linked to local incentives to modify practices in the way that is best for that region."

Sustainability goes far beyond environmental aspects and global effects, but also involves specific social, political and ideological debates that change between countries and regions, and it is therefore possible to understand it institutionally as a pressure anchored in different logics (Gümüşay et al., 2020; Lounsbury et al., 2021). It also involves the responsible use of natural resources, reducing waste, conserving biodiversity, promoting social justice, and improving people's quality of life. (Schramm;

Corbetta, 2015). Thus, it can be seen that companies focused on the production of goods and services are gradually incorporating sustainable actions into their business plans and in the management of their processes (Amato; Neto, 2011).

In these cases, it is up to institutions such as the State, for example, as an actor that exerts great influence on organizations, to ensure formal control structures in relation to the adoption of sustainable measures (Delmas & Toffel, 2011).

In addition, sustainability also encompasses the adoption of sustainable practices and technologies, such as the use of renewable energy, the reduction of pollutant emissions, the development of environmentally friendly products and processes, the stimulation of the circular economy, among others.

It can be said that sustainable development is a verbal locution in which two concepts are linked. The concept of sustainability comes to qualify or characterize development." (Machado, 2015). Or In other words, it is possible to say that sustainability is the process that aims to achieve sustainable development and, in turn, sustainable development is the goal to be achieved (Sartori; Latronic; Campos, 2014).

In summary, sustainability aims to ensure the survival and well-being of current and future generations, considering environmental, social, and economic aspects, and promoting harmony between human beings and the environment. However, as the gaze turns to local contexts, adversities and regional specificities arise. Towards Sachs (2015), Sustainable development attempts to understand the interactions of three complex systems: the world economy, global society, and the Earth's physical environment.

For Vidal, Araujo and Freitas (2018) Sustainability in the constitutional environment is the integrated fulfillment of the Sustainable Development Goals, as a fundamental principle of prevention and precaution, in order to consolidate ecologically balanced development.

2.2 SUSTAINABILITY IN FAMILY FARMING

Family farming is present everywhere, whatever the country, its history or its political system. According to FAO data (2018), about 80% of the world's food production comes from family farming, accounting for 85% of the cultivated land in Asia, 83% in North and Central America, 68% in Europe, 62% in Africa and 18% in South America.

According to IBGE (2017), 77% of rural establishments in Brazil, that is, 3.9 million properties, are classified as family farms and correspond to 23% of the area of all rural establishments in the country, employing about 10 million people.

In the Southern Region of Brazil, there are 1.01 million agricultural establishments, which contribute with 28.8% of the value of production and occupy 12.5% of the national agricultural area. Of the total number of these establishments, 84% fall into the category of family farmers.

In Brazil, the theme of family farming was regulated by Law No. 11,326, of July 24, 2006, defining family farmer as the individual who practices activities in rural areas, together with family labor in the economic activities of the establishment, as well as directs the establishment in a family team and that the income predominantly originates from the economic activities linked to the establishment (Schneider 2014).

For Ferreira, Silva Cruz and Santana (2014), family farming is a fundamental segment for Brazil, as it has been contributing to the economic, social and environmental aspects, that is, attending to the aspects of sustainability and thus fighting poverty in the countryside, generating healthier food production and activities that do not harm the environment.

According to Tedesco (1999), family farming is one in which the family owns the means of production and, at the same time, is the one who performs the work necessary for the operation of the property. The central question of Tedesco (1999) is related to the theoretical explanation of the permanence of the family farmer and his strategies of survival and reproduction in modern society.

For Schneider and Cassol (2017), the family farmer is a family that works on a piece of land (with a few hectares and not always owned by them), developing agricultural activities, that is, generating agri-food production for self-consumption and, increasingly, for the market.

Brazilian family farming has always adopted a diversity of social and economic reproduction strategies, which, according to Silva and Hespanhol (2023), are central elements to understand the transformations of this social group for its survival and permanence in rural areas.

Family farming uses criteria for exploitation not only from the angle of production and economic profitability, but also considers the needs of the family and, unlike the employer model, in which there is a separation between management and work, in the family model they are solely related (Hecht, 2000).

The role of family farming today is recognized for its ability to articulate and boost local economies and for its direct relationship with the food and nutritional security of the Brazilian population in its most diverse territories. In addition, this type of agriculture has been shown to be fundamental for sustainable rural development, establishing an intimate relationship and lasting bonds between families and their living and production environment (Gomes; Silva, 2019).

Brazilian family farming is an important category for social and economic development, being responsible for a significant portion of the food production consumed in the country, generating income and employment in the countryside. The rural environment, for this segment of the population, is not only a space for production, but also for life. To ensure their survival and social reproduction in rural areas, family farming adopts some strategies aimed at family units or production units (Apablaza; Plein 2023)

In relation to family farming, studies on its definition indicate that "[...] it is the agricultural method by which most food is produced in Brazil, since it has a diversified production, destined to supply the property, where the surplus is sold with a view to obtaining income" (Funk; Borges; Salomani, 2006, p. 2). According to the authors, the scope that family farming has taken in recent years makes it look new and renewal, although it is not a new activity.

2.3 SUSTAINABILITY IN ORGANIC FAMILY FARMING

Tambosi, Mondini, Borges and Hein (2000), in a research carried out with students from the University of Santa Catarina, identify that there is a great concern with the issue of environmental awareness, sustainable consumption and the intention of ecological products, which are factors that directly influence the time of consumption.

According to Versani (2016) in his research carried out on the characterization of the profile of organic food consumers at CEASA-DF, the reason that leads consumers to make the decision to purchase organic food is the concern with health, the search for organic food, which is characterized by the quality of the product, linked to the improvement of quality of life.

For Feyh, Lizana and Carvalho (2022), in a research carried out on the consumer profile of organic products, the main reason for consuming organic products is the seasonality of the products, that is, they buy seasonal products.

According to Ferreira and Coelho (2020), in research on determinants in the acquisition of organic products by Brazilian households, location, lifestyle habits, and diversification of food for consumption predominated.

According to Andreatta, Camara, Lago, Toledo, and Azevedo (2020), in a survey on consumers' perception of organic products, the consumption of these products is due to issues related to health and the environment, but even knowing these benefits, not everyone consumes them due to the price, accessibility, and income of consumers.

According to Miranda, Alves, Silva, Pontes, and Martins (2020), in a survey conducted on the socioeconomic profile and organic consumption in Belém-PA, factors such as healthier and more ecologically correct food influence consumption, but the cause that most influences would be the difficulty of access to fairs that offer quality products.

For Fernandes, Lunardi, Rocha and Sama (2020), who researched the consumer behavior of organic products, it was found that the quality of the product, ecological awareness and knowledge about food, availability and price are causes that influence the consumption of products of organic origin.

According to Buquera, Marques and Franco (2021), in a survey on consumption habits in Sorocaba-SP, consumers look for places that offer a more complete purchase with a lot of diversity of products for consumption, avoiding being separated between different points of sale.

According to Quadros, Almeida, Araujo, Santos and Santos (2020), in a survey carried out on the profile of consumers in Bom Jesus da Lapa-BA, the factors that influenced this public to consume or not organic products are related to health and quality of life issues, in addition to taking into account their social responsibilities.

Borges, Beuron, Stoll and Garlet (2018), when analyzing the influence of sustainable consumption on the purchase decision, found that the sustainable attitude is related to the purchase intention because consumers choose organic products because they cause less damage to the environment, when related to sustainable attitudes and environmental awareness, consumption is not due to environmental concern, but rather for reasons that consuming organic products are healthier.

Pasqualotto and Sampaio (2021), when researching the process of purchasing organic products during the COVID-19 pandemic, reported through interviews a strong trend of consumption of products of organic origin linked to environmental protection and the health of producers and consumers, but due to the risk of contagion during the

pandemic, people gave up attending physical stores and fairs, migrating to online shopping.

According to Prado and Moraes (2020), regarding the profile of organic and natural consumers, the reasons that justify their consumption are concern with health, product quality, lifestyle, cultural issues, price, and environmental concern.

In the table below, you can see the variables that influence the consumption of organic products, cited by each author.

Author	Variable
Andreatta, Câmara, Lago, Toledo e Azevedo (2020)	Health, Environment, Price and Accessibility.
Borges, Beuron, Stoll and Garlet (2018)	Environment & Health
Buquera, Marques and Franco (2021)	Product Diversity and Accessibility
Fernandes, Lunardi, Rocha and Sama (2020)	Quality, Ecological Awareness, Knowledge, Availability and Price
Ferreira and Coelho (2020)	Diversification, Lifestyle Habits and Product Diversity
Feyh, Lizana and Carvalho (2022)	Product Seasonality
Miranda, Alves, Silva, Pontes e Martins (2020)	Accessibility and Health
Pasqualotto and Sampaio (2021)	Environmental Protection & Health
Prado and Moraes (2020)	Health, Product Quality, Lifestyle, Cultural Issues, Price and Environmental Concern.
Quadros, Almeida, Araújo, Santos and Santos (2020)	Health, Quality of Life and Social Responsibilities
Tambosi, Mondini, Borges Hein (2014)	Environmental Awareness and Sustainable Consumption
Versani (2016)	Health, Product Quality and Life

Table 1 - Variables that influence the consumption of organic products.

Source: Literature search (2023)

The variables found by the authors that influenced the consumption of organic products were: health, quality of life, environmental awareness, price, sustainable consumption and lifestyle.

2.4 DIVERSIFICATION AND SPECIALIZATION - CUSTOMER ORIENTATION TO THE FARMER

Family farming has always had polyculture as its basic characteristic, constituting over time a diversity of social forms, making it difficult to establish a standard model for this type of production, characterized by the intertwining of family production (Brasil, 2015).

The family production method is fundamental for food and nutritional security through the greater diversity of foods and the possibility of improving the human-food-society relationship, in addition to the generation of employment and income and sustainable development (Brasil, 2015).

Family farming stands out for its great diversity, especially for the production of corn, cassava, dairy farming, beef cattle, sheep, goats, vegetables, beans, sugarcane, rice, pigs, poultry, coffee, wheat, castor beans, fruit and vegetables. Production diversification emerges as an alternative strategy for subsistence and stabilization of income flow for rural production, considered as a dynamic environment full of instabilities and uncertainties (Makishi and Veiga, 2016).

Farmers who practice the diversity of family production are motivated by the growing demand for the markets for organic products that are rapidly expanding, in addition to emerging as an alternative for rural producers who had difficulty finding opening in the markets (Breitenbach, 2018).

According to Vielmo, Drumm and Deponi (2018), in their research on the management of family farming, pluriactivity, diversification of production and organic agriculture, they define it as a strategy that rural producers use as an alternative for survival, as it is the way found to escape the dependence that the market imposes, reducing the risk in the face of an environment of instability that agriculture finds itself in.

For Moreira and Binotto (2014), in a research carried out on the diversification of agronomic crops as a sustainable form of family farming, a complex and diversified production system presupposes the maintenance of annual and perennial polycultures associated with animal husbandry, becoming more stable by increasing the capacity to

absorb the disturbances inherent to the agricultural production process, especially market and climatic fluctuations, thus increasing its capacity for self-reproduction, also pointing to an alternative increasingly recognized worldwide as an option to promote sustainable rural and agricultural development.

According to Villwock and Perondi (2016) in a study entitled *Analysis of the Income Strategies of Family Farmers in Itapejara D'Oeste-PR*, by adopting production diversification, producers were able to maintain their incomes in the years of crises.

For Fontoura, Silva, Silva and Deponti (2022) in research on diversification and economic and financial management in family farming, diversification programs in areas with a predominance of small rural properties need to consider several factors, articulatedly: income generation capacity, security and stability in production and marketing, family reproduction conditions, family well-being and health, among others. In addition, the proposals must take into account not only the individual family unit, but also its insertion in the community and in the territory. In this way, diversification will be enhanced, linked to dynamics that rethink the planting of cultivars according to their regional context.

For Sambuichi (2014), the main obstacles to diversification are: the lack of technological knowledge to implement and manage diversified systems that are efficient and sustainable, the low availability of labor to enable systems that are more labor-intensive, given the greater difficulty of mechanizing crops, the difficulties of commercialization and infrastructure of processing, storage and transportation inherent to the smaller scale of production; and the lack of capital to pay for the invocative changes.

For Carneiro and Montebello (2021), agricultural diversification is presented as a strategy for farmers to deal with various types of risks, such as price, productivity, lack of inputs in the market, market risk for not finding a buyer for their product.

According to Endo, Back and Hofer (2018), in a study conducted in the state of São Paulo on motivation for diversification, the entrepreneurial vision of farmers in the region played the most important role for diversification to occur in the region, as this characteristic made them not depend on only one crop to seek their survival.

According to Figueredo, Montebello and Norder (2021), in a research on production diversification at the Chão institute in the state of São Paulo, the participation of farmers in marketing provided greater diversification, as from then on they felt

stimulated the implementation of new crops that began to be produced and sold in family farming.

For Carvalho, Claus, Mendonça and Simão (2019), in research on the portfolio theory on the diversification of coffee production, the diversification of production with other crops minimized production risks and maximized returns due to the existence of economic and agronomic gains for their crop.

Diversifying production or concentrating efforts through specialization in agricultural activities are frequent choices from the point of view of rural producers. This decision can lead your venture to success, in the form of greater economic return on the activity, or even to failure, with irrecoverable losses. In an effort to achieve economic profitability, the producer needs to decide which products to produce and which inputs and technologies to adopt. These choices are accompanied by high economic and climatic risks, present in agricultural activities. Profitability can be increased through productive specialization and productivity gains, resulting in more product and income. Among the causes of productivity growth, in addition to technological changes, are economies of scale, which allow the expansion of production through greater specialization in the use of facilities and equipment.

In the table below, the variables that influence, according to the authors, the diversification of organic food production were identified.

Author	Study variable
Markshi in Veiga (2016) Villwock and Perondi (2016) Fontoura, Silva, Silva and Deponti (2022)	Income
Vielmo, Drumm E Deponti (2017)	Survival Alternative Risk Reduction
Moreira and Binotto (2014)	Rural Development, Sustainability
Sambuichi (2014) Figueredo, Montebello e Norder (2021)	Knowledge Labor Marketing Infrastructure

Carneiro and Montebello (2021)	Price Productivity Lack of inputs Market risk
Endo, Back and Hofer (2018) Figueredo, Montebello e Norder (2021)	Personal Features
Carvalho, Claus, Mendonça and Simão (2019)	Risk minimization Maximizing returns Economic and agronomic gains

Table 2 - Variables that influence the diversification of organic products.

Source: Literature search (2023)

In chart 2, the variables that influenced the production of organic food, according to the authors, were: alternative survival income, knowledge, labor, commercialization, infrastructure, price, productivity, lack of inputs, market risk, risk minimization, maximization of economic and agronomic returns, risk reduction, rural development, sustainability, and personal characteristics.

Altieri and Nicholls (2000) point out that this trend towards specialization is based on mechanization, genetic improvement of cultivated plants and the use of agrochemicals for fertilization and pest control. And as agricultural modernization has advanced, there has been an increase in the presence of monoculture around the world, which is a reflection of the expansion of areas dedicated to a single crop and the non-rotation in the choice of species.

The specialization of agricultural production is characterized by the focus only on a single crop, which means that the farmer will concentrate his efforts and knowledge and a single function, this option ends up leading to a greater improvement of his production (Schneider, 2010; Hansson 2010; Hoffmann 1987)

According to Senger (2016), a rural property is considered specialized when 50% or more of its income originates from a single rural activity, the agricultural establishment was considered specialized, and the higher this value is, the greater its specialization.

For Deggerone and Schinaider (2021), specialization is based on alternatives found for rural development where there is an absence of production diversity, having a direct relationship with the adoption of uniform production processes, the division of

labor, the intensification of the production process seeking greater efficiency in terms of cost and labor reduction to increase the profitability margin of productive activities.

According to Conterato and Bráz (2019), in a survey conducted with family farmers in the South Zone of the state of Rio Grande do Sul, productive specialization had a great growth in the region due to the implementation of rural credit lines that favored specialization, leading to a bottleneck in production seeking greater profitability.

According to Milverstet and Fachinello (2016), in their research on productive specialization in Santa Catarina agriculture, rural producers concentrate production by specializing due to the internationalization of agricultural commodity markets that impose new legal restrictions and competitive standards.

For Ferreira and Vasconcelos (2013), in their research carried out in the northeast region of Brazil, production specialization is only favorable when there are outstanding gains in productivity arising from competitive advantages generated from technological innovation, as the research also highlights that if the agricultural activity suffers some type of crisis in the sector, such as a pest or climate change, Productivity will suffer consequences that may be irreparable.

The main disadvantage of specialization is the fragility provided to the producer or region, if a climatic adversity occurs in a certain critical phase of a crop, as well as the occurrence of some disease in the crop or low values and high production costs (Hansel, Bertolini, and Ribeiro 2021).

Productive specialization is an alternative found for rural development where there is an absence of diversity, bringing technological innovation and increasing the competitive advantage of agricultural properties. (Deggerone & Schinaider 2021).

Author	Study variable
Altieri and Nicholls (2000)	Mechanization, genetic improvement
Senger (2016)	Income
Deggerone and Schinaider (2022)	Rural development
Conterato and Bráz (2019)	Rural lines of credit
Milverstet and Fachinello (2016)	Internationalization of the market Legal Restrictions

	Competitive standards
Ferreira and Vasconcelos (2013)	Technology, Competitive Advantage,
Hansel, Bertolini, E Ribeiro 2021	Climate change, Diseases High production cost

Table 3 - Variables that influence the specialization of organic products.

Source: Literature Search (2023)

In chart 3, the variables that influenced the specialization of organic food production, according to the authors, were mechanization, genetic improvement, income, rural development, rural credit lines, market internationalization, legal restrictions, competitive patterns, technology, competitive advantage, climate change, diseases and high production costs.

3 TECHNICAL PRODUCTION RESEARCH METHOD AND TECHNIQUES

3.1 RESEARCH DESIGN

The research is characterized as quantitative, as it employs quantification both in the modalities of information collection and in its treatment through statistical techniques (Richardson, 1999), and exploratory because it provides a general view of a given fact (Gil, 2006).

A structured *survey* questionnaire with various scales was applied, containing 35 closed questions related to the theoretical elements described in Chart 1. The questionnaires were prepared and made available online, through the *Google Forms* platform, from December 30, 2022 to May 30, 2023.

The questionnaire was addressed to consumers through WhatsApp in a group created by each market in the city, where it advertises product offerings.

The results were tabulated in the EXCEL software to organize the results. To define the sample size, according to Barbetta, Reis and Bornia (2004), the simple random sampling calculation was used, where:

$$n = \frac{(N * n_0)}{(N + n_0)} \quad n_0 = \left(\frac{1}{\varepsilon_0} \right)^2$$

N= Population Size

E0 = Tolerable sampling error

n0 = First approximation of sample size

n = Sample size

Considering the population of Corbélia-PR, with approximately 17,117 inhabitants (N), according to the latest survey by IBGE (Brazilian Institute of Geography and Statistics) (2020), considering a confidence level of 95% and a sampling error of 0.5% (E0), a sample result of 407 respondents is reached.

To create the questionnaire, the table "Variables that influence the consumption of organic products" was used to prepare the questions.

After data collection, descriptive statistical analysis was performed, using tables to represent the results obtained through the questionnaire.

To perform the correlation analysis of the questionnaires, the PSPP – GNU Project software was used. Where Pearson's correlation was applied, which is a statistical measure that quantifies the strength and direction of a linear relationship between two continuous variables.

Pearson's correlation coefficient, usually denoted as "r", variables from -1 to 1, where:

- $r = 1$ indicates a perfect positive correlation: as one variable increases, the other also increases linearly.
- $r = -1$ indicates a perfect negative correlation: as a variable increases, the other decreases linearly.
- $r = 0$ indicates no linear correlation.

The calculation of Pearson's correlation coefficient involves the formula:

$$r = \frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\left[\sum_{i=1}^n (x_i - \bar{x})^2 \right] \left[\sum_{i=1}^n (y_i - \bar{y})^2 \right]}}$$

Where:

- x and y are the paired variables.
- \bar{x} and \bar{y} are the means of x and y , respectively.

The result r is a measure that indicates the strength and direction of the linear relationship between the two variables. A value close to 1 or -1 suggests a strong correlation, while a value close to 0 indicates a weak correlation, as shown in the table below:

r value (+or -)	Interpretation
0.00	Null
0.01 to 0.20	Tiny weak
0.21 to 0.40	Weak
0.41 to 0.60	Moderate
0.61 to 0.80	Strong
0.81 to 0.99	Small strong
1	Perfect

Table 4 - Correlation factors.

It is important to note that Pearson's correlation evaluates only linear relationships and does not capture nonlinear relationships. In addition, correlation does not imply causation, i.e., the fact that two variables are correlated does not necessarily mean that one causes the other.

4 DATA ANALYSIS

In data collection, questionnaires were sent in WhatsApp groups with approximately 1000 people, registering 407 respondents who were qualified according to the table below:

Category	Answers	Quantity	%
Gender	Female	241	59.2%
	Male	166	40.8%
Marital status	Married	150	36.9%
	Single	208	51.1%
	Separate	27	6.6%
	Divorced	19	4.7%
	Widower	3	0.7%
Age group	Under 18 years of age	22	5.4%
	19 to 25 years old	120	29.5%
	26 to 35 years old	171	42.2%
	More than 35 years	94	23.1%
Schooling	Elementary School	7	1.7%
	Middle school	71	17.4%
	Graduation	184	45.2%
	Postgraduate studies	145	35.6%
Income	up to 1 minimum wage	30	7.4%
	from 1 to 3 minimum wages	159	39.1%
	from 4 to 5 minimum wages	118	29%
	from 6 to 10 minimum wages	100	24.6%

Table 5 - Respondents' Profile.

Source: Research

The data collected show that the predominance of the respondents' profile was female, aged between 26 and 35 years, with education at the undergraduate level and income between 1 and 3 minimum wages. Males, under 18 years of age, with schooling, elementary school, and income of 5 to 10 minimum wages had the lowest number of respondents (Table 1).

The age profile of the respondents was organized into four age groups: under 18 years of age, which represent 5.4% of the sample with 22 respondents, 19 to 25 years of age, representing 29.5% with 120 respondents, 26 to 35 years of age, representing 42% with 171 respondents, and over 35 years of age, representing 23.1%, with 94 respondents.

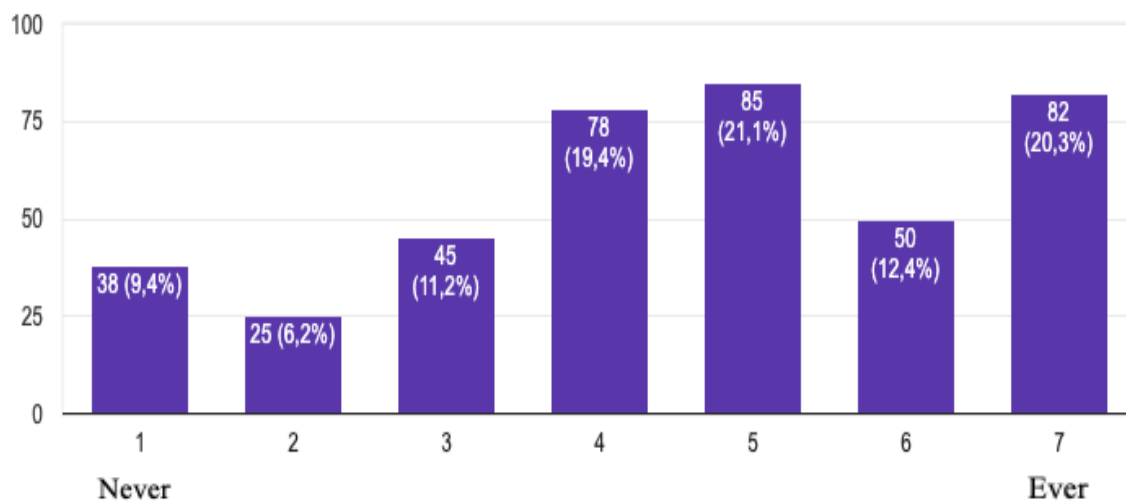
Regarding schooling, the organization was as follows: elementary school representing 1.7% of the sample with 7 respondents, high school representing 17.4% with 71 respondents, undergraduate education representing 45.2% with 184 respondents, and graduate education representing 35.6% with 145 respondents.

The income profile of the respondents was divided into four ranges: up to 1 minimum wage, which corresponds to 7.4% of the sample with 30 respondents, 1 to 3 minimum wages are 39.1% with 159 respondents, 4 to 5 minimum wages which correspond to 29% with 118 respondents, and 6 to 10 minimum wages are 24.6% of the sample with 100 respondents.

4.1 CHART ANALYSIS

Intention to buy from companies that are unfavorable to the environment.

Regarding buying from a company that shows disrespect for the environment, the results can be found in graph 1.



Graphic 1 - Stop buying from a company that shows disrespect for the environment.

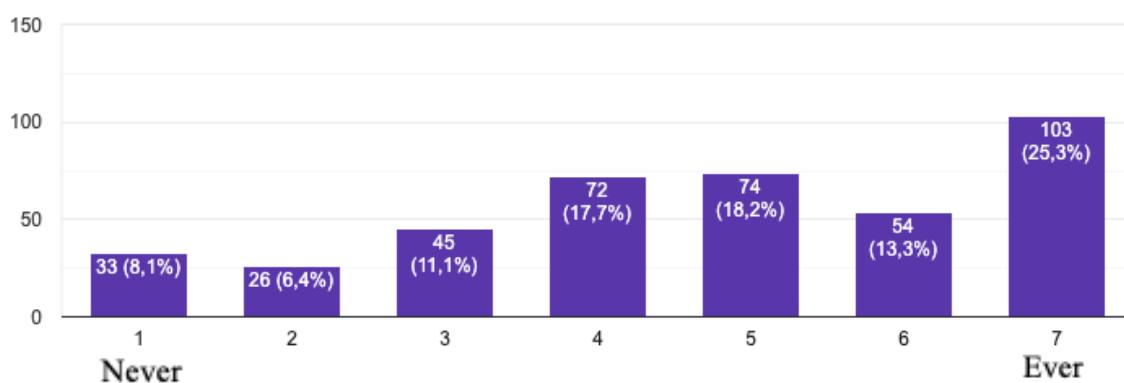
Regarding not buying from a company that shows disrespect for the environment, on a scale where 1 (one) is never and 7 (seven) is always, 21.1% marked the level of influence as 5, while 20.3% marked 7 where they refuse to buy from a company that shows disrespect for the environment, 19.4% marked option 4, 12.4% marked the level of influence as 6, 11.2% marked option 3 and less than 10% marked option 2 and 1 on the scale.

For Diniz (2022), in his research on determinants of intention to purchase organic products, consumers with a more positive attitude tend to incorporate a greater concern

for the environment. According to Yin (2016), consumers make an ethical assessment, as they consider that their actions may result in unfavorable consequences for the environment. In this research we found results similar to those of the authors mentioned above, where consumers show more empathy for companies that show respect for the environment, consuming products of organic origin free of chemicals, from this we can see that the specialization of organic production is favorable to this result, because the producer focuses on producing only one type of product with higher quality.

Brand & Environment

Regarding the change of brand to buy from companies that show greater care for the environment, the results can be found in graph 2.



Graphic 2 - I change brands to buy from companies that show greater care for the environment.

In an analysis about changing brands to buy from companies that show greater care for the environment, on a scale where 1 (one) is never and 7 (seven), 25.3% answered that they always choose companies that show more care for the environment, 18.2% answered 5 as a level of influence on choosing another brand that values the environment more, 17.7% answered 4 as the level of influence, 13.3% answered 6, 11.1% answered 3, 8.1% marked 1 and 6.4% marked 2.

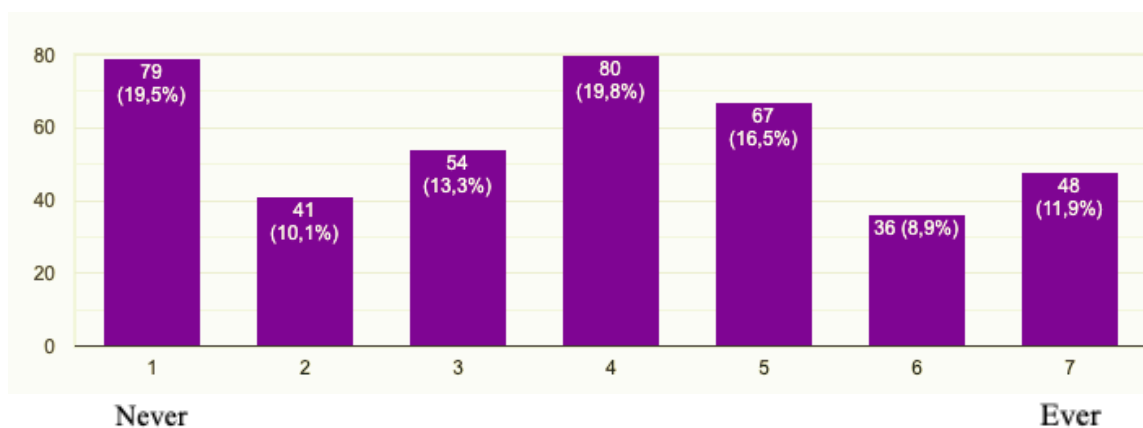
According to Tambosi, Mondini, Borges and Hein (2014), environmental awareness determines the form of consumption, as consumers have started to consider environmental variables when making their purchases, preferring environmentally friendly products end up pressuring organizations to produce responsibly and without degrading nature.

Sustainable consumers modify their purchasing behavior to reduce their environmental impact, as they believe that their actions make a difference in the world, so they avoid consuming products that consume a lot of energy, have excessive or disposable packaging, contain ingredients from habitats or endangered species in their production product, and/or that negatively affect other individuals (Abarolado 2022).

The change of brand at the time of purchase is influenced by the environment, as we saw in graph 2, where more than 50% of the sample shows concern for the environment, this factor is determinant when consuming, the authors above in their research also demonstrate this type of result collaborating with the results found.

Lifestyle influence

Regarding lifestyle as an influence to purchase organic products, even though they are more expensive than regular products, the results can be found in graph 3.



Graphic 3 - My lifestyle influences me to purchase organic products, even if they are more expensive than regular products.

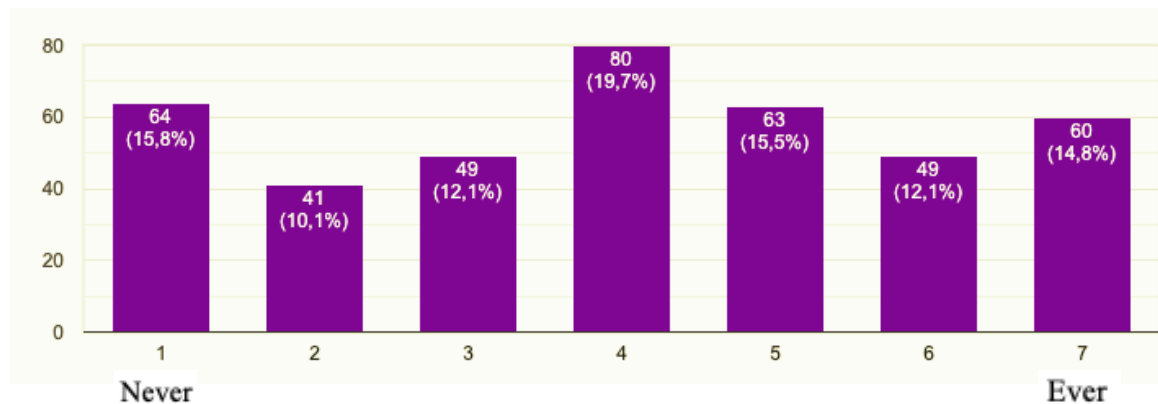
Regarding lifestyle as an influencer in the purchase of organic products, even if more expensive than regular products, 19.8% marked option 4 which would be middle ground, 19.5% chose option 1, where lifestyle is not a factor that influences the purchase time, 16.5% marked option 5, are more favorable to lifestyle as an influencing factor when buying organic products, 13.3% chose option 3 were not very favorable to the influence, only 11.9% who marked option 7 considered themselves totally influenced by their lifestyle at the time of purchase, 10.1% marked option 2 with very little influence and 8.9% marked option 6 being influenced at the time of purchase by lifestyle.

For Miranda, Alves, Silva, Pontes and Martins (2022), in their research on the sample with family income, it was predominantly higher than 4 minimum wages, for Pinho, Oliveira, Menezes (2019) the income of their sample was above 4 minimum wages, Passos and Fornazier (2018) had the same results but in their research more than 50% of the sample had an income above 4 minimum wages; to Buqueira; Marques; Franco (2022) the income was above 3000.00 reais per month, showing then that the factor that determines paying for an organic producer is the salary, not lifestyle.

The data presented in graph 3 show that lifestyle does not demonstrate a significant influence on the choice of products of organic origin, which is proven by the authors above in their research, factors that demonstrate an influence at the time of purchase are the income of consumers are not lifestyle. In this case, we can see that specialization is not related to lifestyle, but to the income of the consumer, who is willing to pay the price for a product with higher quality and benefits.

Price versus health benefits

Regarding the preference to pay more for organic products due to the benefits resulting from their consumption, the results can be found in graph 4.



Graphic 4 - I'd rather pay more for organic products for the benefits I see in consuming them, than consuming non-organic products.

Regarding the preference for paying more when purchasing organic products for the benefits of their consumption than common products, 19.7% chose option 4 on a scale of 1 to 7, 15.8% chose option 1 where they do not pay more for organic products for their benefits, 15.5% chose option 5 where they are more favorable to pay more for organic products, 14.8% went to option 7 where they prefer to pay more for organic products, 12.1% checked option 6 where they are likely to buy organic products in price

dysfunction, option 3 with the same percentage are not so likely to pay more and 10.1% checked option 2.

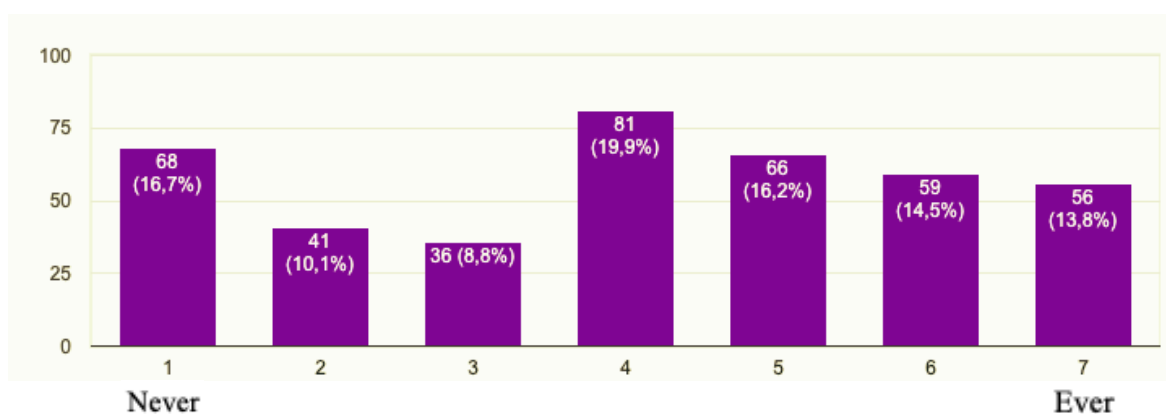
For Miranda, Alves, Silva, Pontes, and Martins (2022) found that the lower frequency of consumption of organic products is directly related to the purchasing power of families, taking into account that these products have an added value because they do not use pesticides.

According to Fernandes, Lunardi, Rocha and Sama (2020), paying more for a product of organic origin is related to the benefits it brings to your health, this interferes with the cost-benefit ratio because in their research it was identified that the price of organic food does not influence consumer buying behavior.

According to the data in graph 4, we can see that paying more for an organic product is indeed related to the benefits found in them, the authors above prove this result in their research where they show that consuming organic products is related to health care and quality of life, so the producer who specializes in producing a product with higher nutritional quality, Free of chemical substances, it ends up finding this audience that is willing to pay its price.

Brand and purchase intente

Regarding the relevance of the brand at the time of purchasing an organic product, the results can be found in graph 5.



Graphic 5 - The brand of an organic product is not relevant at the time of purchase.

The importance of the brand of an organic product is not relevant for 19.9% of the respondents because they checked option number 4, 16.7% checked option 1 where it shows that the brand of an organic product is not relevant at the time of purchase, 16.2% opted for option number 5 where they are influenced by the brand, 14.5% checked option

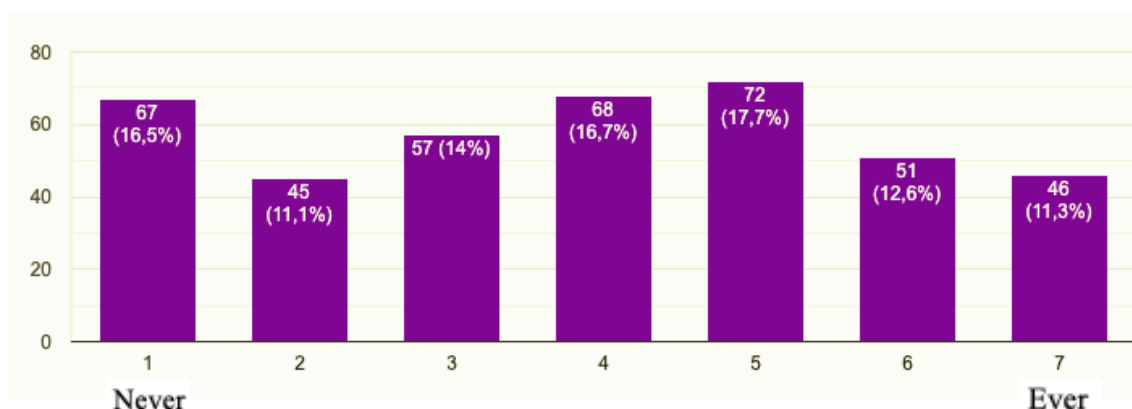
6, 13.8% say that the brand is relevant at the time of purchase by checking option 7, 10.1 marked answer 2 and 8.8% say that the brand does not have much influence on the purchase of organic products.

For Andetratta, Camara, Lago, Toledo and Azevedo (2020), the brand of organic products is an unimportant or even indifferent factor in their research sample because they are more concerned with the quality of the products, the feeling of security, and health care (Feyh; Lizana and Carvalho 2022) and absence of chemicals (Lunardi; Rocha and Sama 2020).

Graph 5 shows that the organic product brand has a certain relevance for the survey respondents, unlike the authors mentioned above, where the concern was for the quality of the products, health benefits and the absence of chemicals. Producers who choose to diversify their production have more returns in those cases where the brand has a determining factor in the choice of consumption.

Health & Purchase Intent

Regarding the purchase of organic products for health benefits, the results can be found in graph 6.



Graphic 6 - I only buy organic products because I care about my health.

The concern with health is shown as a favorable factor for the purchase of organic products, in 17.7% of the respondents of this survey, as they marked option 5, 16.7% opted for answer 4 where they do not feel influenced by health when buying organic products, while 16.5% who were in option 1 do not buy organic products for health reasons, 14% marked answer 3 where they are almost not so influenced, 12.6% who marked answer 5 are influenced by health at the time of purchase, 11.3% marked answer 7 where they are buying organic products due to health concerns, 11.1% opted for answer 2 where they do not suffer from the influence of health at the time of purchase.

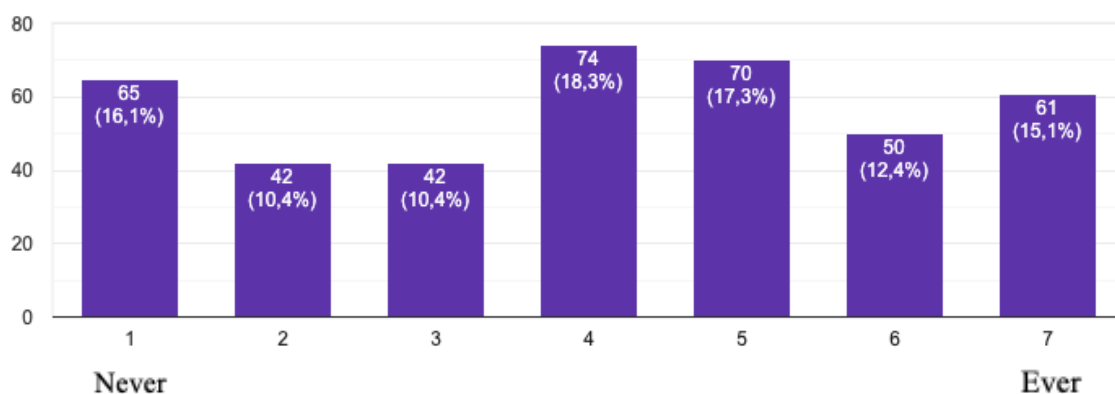
According to Feyh, Lizana and Carvalho (2022), the behavior of consumers of organic products is directly linked to their concern with health and quality of life. For Almeida (2019), one of the factors reported as important in the purchase decision was health care through a diet free of toxic chemicals.

For Tambosi, Mondini, Borges and Hein (2014), in their research carried out with university students, the greatest concern is related to environmental issues, such as environmental awareness, sustainable consumption and intention to purchase ecological products.

In graph 6, we can see that the sample is well divided, with those who consume organic products for the health benefits and those who consume for various reasons, this is proven with the research of the authors cited above where the health benefits are considered influences at the time of purchase and on the other hand they are not the only reasons that lead consumers to use this product. Here, specialization is favorable to consumers who consume the products due to their benefits, while for those who consume for various reasons, diversification would be the best choice.

Knowledge and purchase intent

Regarding knowledge as a decision factor when purchasing products of organic origin, the results can be found in graph 7.



Graphic 7 - I buy organic products because of the knowledge I have about them.

Knowledge at the time of purchase of an organic product, for 18.3% who answered option 4, is an intermediate factor, for 17.3% who answered option 5 are already more favorable to knowledge, 16.1% who answered option 1 knowledge about organic products is not a factor considered at the time of purchase, 15.1% who answered option 7, 12.4% who answered option 6 consider knowledge a determining factor at the time of

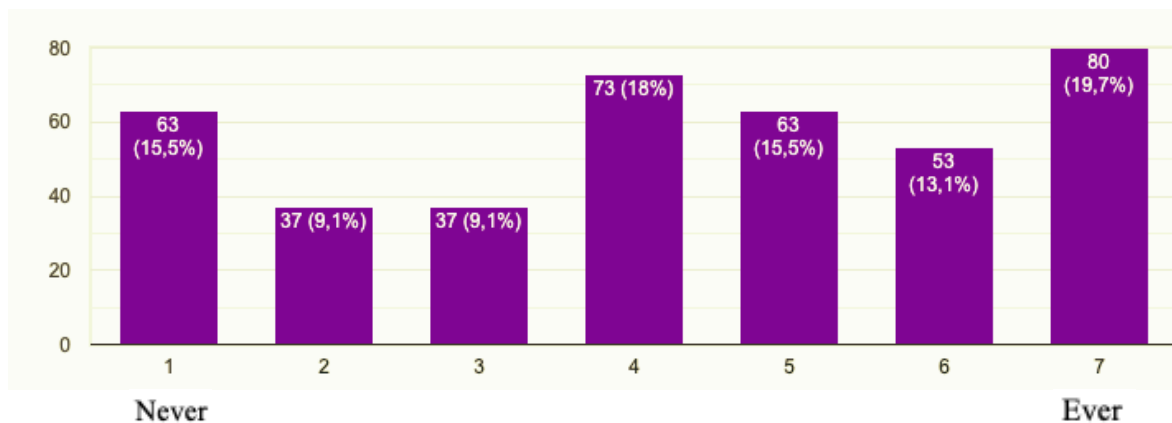
purchase, 10.4% chose both option 2 and 3, knowledge does not determine the purchase of organic products.

In the study carried out by Feyh, Lizana and Carvalho (2022), the consumption of organic products is more related to the level of education, as the higher their level of conscious behavior. Towards Miranda, Alves, Magno-Silva, Pontes, Tavares-Martins (2022), Passos and Fornaizer (2018) and Versani (2016), the degree of knowledge is directly related to consumption habits.

Graph 7 shows that respondents choose organic products because of the knowledge they have about the product, as well as the authors cited above buy this result by reporting that the higher the level of education or level of education, the greater the propensity to consume organic products. This result is favorable to the specialized producer because his consumer is aware of how his production processes work and the care inserted in them, thus seeking to consume his products.

Influence & Organic Products

Regarding the opinion of others as an influencing factor for purchasing organic products, the results can be found in graph 8.



Graphic 8 - Regardless of the opinion of others, I buy organic products.

The influence of other people's opinions on the purchase of organic products showed that for 19.7% who answered option 7, it was a factor that does not interfere with the purchase, for 18% who answered option 4 is an intermediate factor, 15.5% who answered option 1 and 5 where people's opinion interferes in their buying behavior; On the other hand, in option 6 they suffer little interference respectively, 13.1% who answered option 6, suffer from the interference of the opinion of others, 9.1% chose both

option 2 and 3, the opinion of others makes some kind of interference at the time of buying organic products.

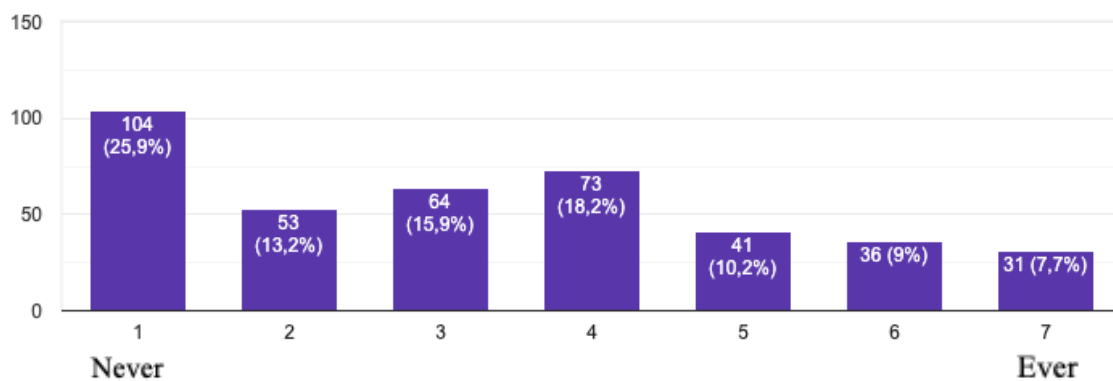
For Ceretta and Formming (2011), consumer behavior is revealed through interpersonal interference, since they decide to buy products or services based on what they consider others to expect from them, which may be influenced by cultural, social, personal and psychological factors (Kotler: Keller, 2006)

For Feyh, Lizana and Carvalho (2022), the behavior of the consumer of organic products has similar motivations with the perspective of the individual's values, which seek quality of life, health and well-being.

In graph 8, the results reveal that the opinion of others has an influence on the purchase of organic products, according to the authors above, Several cultural, social, personal and psychological factors are influential when purchasing products of organic origin, which proves the data above, due to this the increase in consumption of organic products is favorable to the specialized producer.

Lifestyle influence

Regarding the interference of lifestyle when purchasing products of organic origin, the results can be found in graph 9.



Graphic 9 - Regardless of my lifestyle, I don't buy organic products.

The lifestyle option is a factor that influences the lifestyle of the respondents, since 25.9% who answered option 1, that lifestyle is a primary factor at the time of purchase, for 18.2% who answered option 4 is an intermediate factor, 16.5% who answered option 3 suffer from the influence of lifestyle, 13.2% who answered option 2 prioritized lifestyle, 10.2% chose option 5, 9% chose option 6 and 7.7% chose option 7 regardless of lifestyle suffer little or never from this type of influence.

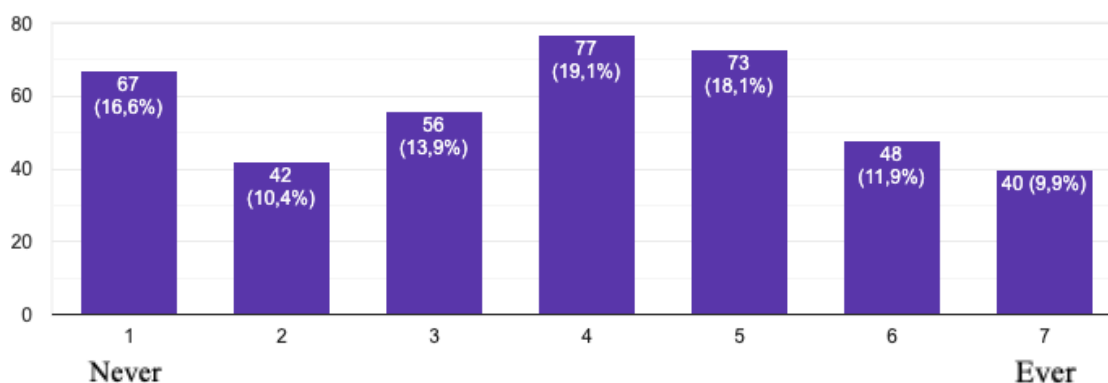
According to Fernandes, Lunardi Rocha, and Sama (2020), Brazilians purchase organic products due to the non-use of pesticides, environmental preservation practices, and characteristics such as taste, color, and smell.

According to the research of Feyh, Lizana and Carvalho (2022), the motivations found for the consumption of organic products are aligned with those of sustainable consumption, which are determined by practices that favor a higher quality of life.

In graph 9, we can see that the respondents mostly never purchase products of organic origin due to their lifestyle, the authors above find different results where the option for this product comes from not using chemicals in its production, because they favor the quality of life and characteristics such as taste and smell. In this case, diversified producers would be more valued, as they would have more product options to offer to the consumer.

Price above all else

Regarding price as a determinant when consuming organic products, the results can be found in graph 10.



Graphic 10 - Regardless of whether the product is organic or not, what matters to me is the price.

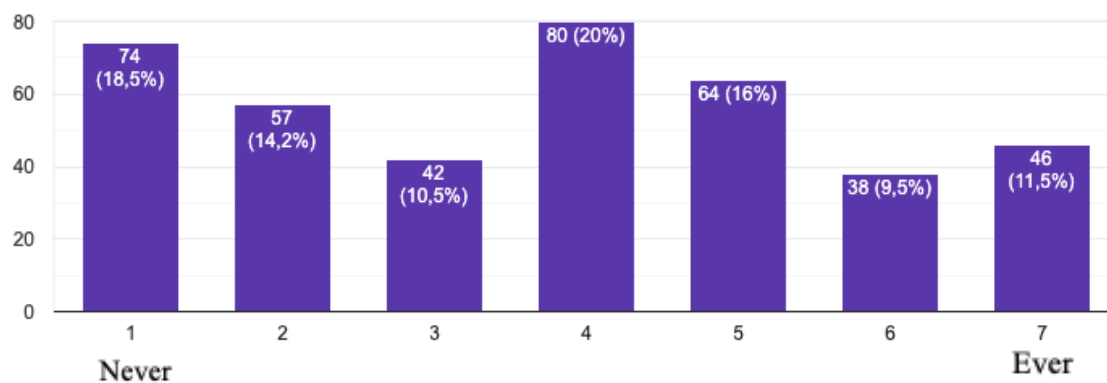
Regardless of whether the product is organic or not, what matters to me is the price, for 19.1% who answered option 4, it is an intermediate factor, 18.1% who answered option 5 where the price already has some decision at the time of purchase, 16.6% who chose option 1 the price is not a factor that determines the purchase of an organic product, 13.9% who chose option 3 The price has little interference in the choice, 11.9% who chose option 6 the price has a good interference in the choice of purchase, 10.4% who opted for option 2, the price has very little interference in the decision, 9.9% and chose option 7 the price is paramount in the choice of organic products.

For Almeida (2019), in his research, some of the interviewees did not care if the product was organic or not, the explanations were that because they did not consume it was indifferent, so it is visible that they only acquired the product for an ease at the time of purchase. For Feyh, Lizana and Carvalho (2022), the consumption of organic products is due to the differentiated flavor of the products and the nutritional value of these foods.

In graph 11, the results are partially divided in relation to prices as a factor that determines the purchase, for the authors mentioned above the nutritional value is determinant when choosing an organic product, while for others they do not care if it is organic or not, they only acquire it for some kind of ease at the time of purchase. For specialized producers, the nutritional values would have more consumers, while consumers who opt for facilities would favor diversified producers, as they offer more quantity of products.

Influence & Healthy Products

Regarding not being influenced to buy organic products, even though they are healthier, the results can be found in graph 11.



Graphic 11 - I am not influenced to buy products of organic origin, even though they are healthy products.

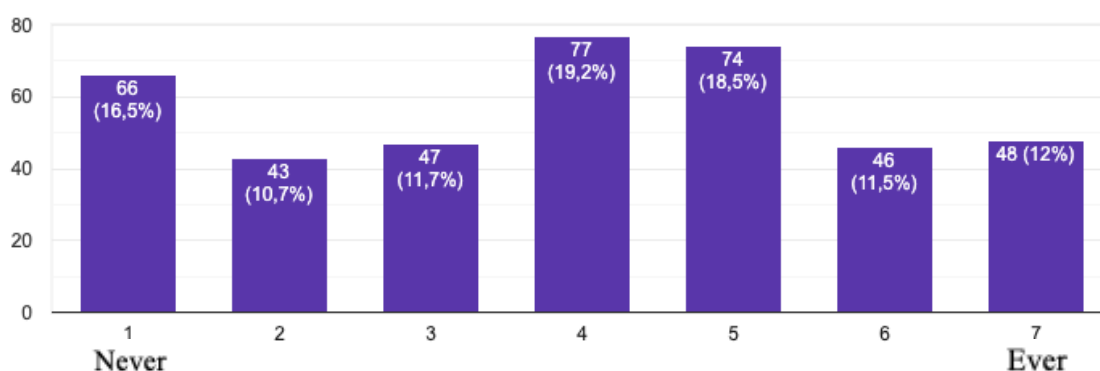
The option of organic products is a primary factor when buying from the 18.5% who answered option 1, for 14.2% who answered option 2, organic origin is an important factor when choosing products. 10% who chose option 3 shows that they are influenced by the origin of the product. For 20% who answered option 4 is an intermediate factor, 16% who answered option 5 do not suffer from the influence of the origin of the product, 9.5% who selected option 6 and 11.5% who chose option 7 shows that they do not care about the origin of the product at the time of purchase.

For Almeida (2019), the attributes that most influence the consumption of organic products are visual aspect and certifications, as this characteristic refers to the credibility of the products.

According to graph 11, the sample is influenced to acquire organic products due to their health benefits, while for the author above the result was different in his research, the visual aspect, certifications are factors that refer to credibility, making them more easily consumed. Based on this result, the diversified producer would be the best option, because the importance of consumers is focused on the credibility of the brand.

Impacts of Organic Purchases

The relationship to buying a product and the impacts caused on the environment are not thought out and the results can be found in graph 12.



Graphic 12 - When I go to buy a product, I don't think about the impacts it causes to the environment.

For 19.2% of the people who chose option 4, the impacts on the environment have an intermediate factor in the choice of organic products, however 18.5% of the population who selected option 5 the environmental impact already has an effect on the choice of some products. For 16.5% of the population who selected option 1, the environmental protection factor is a decision when choosing organic products, for 12% who opted for option 7 and 11.5% who opted for option 6, whenever they go shopping they do not worry about the environment, for 11.7% who opted for option 3 and 10.7% who opted for option 2, The environment is a point to think about when buying.

Feyh, Lizana and Carvalho (2022) in their study identified that people who are more connected to environmental issues have a greater predisposition to sustainable

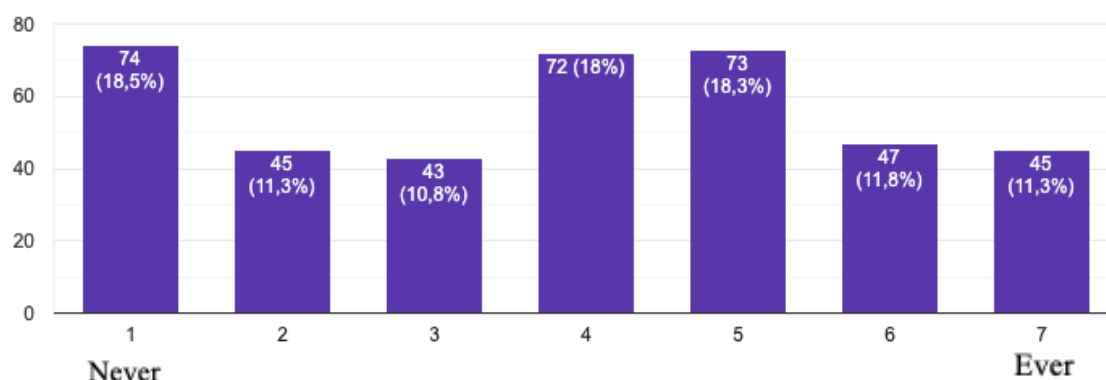
consumption and this type of consumption is leading organizations to produce without degrading the environment.

According to Almeida's (2019) research, 23% of the responses showed a concern for the environment, but only 6% considered it important for the organic production method not to harm the environment.

In graph 12, the respondents always weigh in on the impacts caused on the environment when they go to purchase a product, this is proven by the authors above who in their research found that people currently take environmental issues as factors to be evaluated at the time of consumption, so this result is favorable to the producer specialized in organic products, Because your product will only have value if it respects environmental issues.

Health Concern

Regarding health concerns as interference in the choice of organic products, the results can be found in graph 13.



Graphic 13 - Concern for my health does not interfere with the choice of organic products.

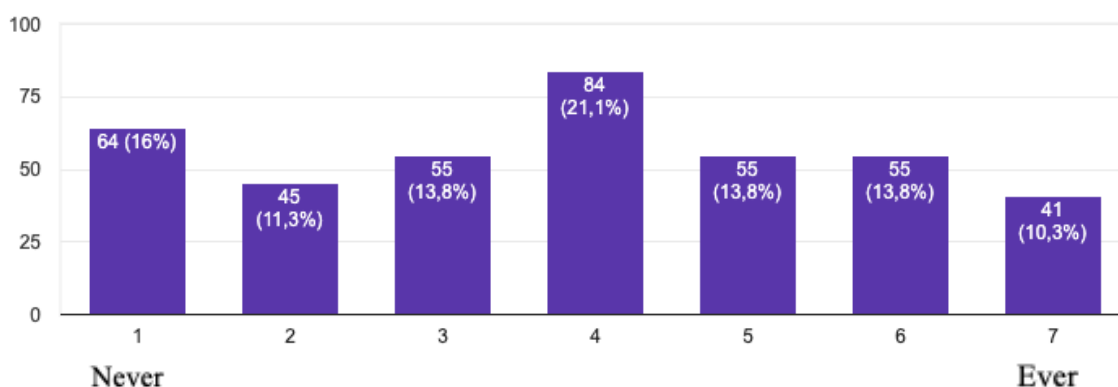
For 18.5% of the people who chose option 1, health concern does not interfere at the time of purchase, however 18% of the population who selected option 4 health concern is an intermediate factor. For 18.3% of the population who selected option 5, worry has as an influence at the time of purchase, for 11.8% who opted for option 6 and 11.3% who opted for option 7, concern with health always or almost always interferes in the choice of purchase, for 11.3% who opted for option 2 and 10.8% who opted for option 2, Concern for health has little relevance in these cases.

In the research conducted by Andetratta, Camara, Lago, Toledo and Azevedo (2020), health concern is one of the main factors that lead to the consumption of organic food.

In graph 13, the survey showed that people are concerned about their health, and because of this they seek to consume more organic food and this can be proven by the authors above in the results of their research, which demonstrate health as a determining factor in the choice of organic products, favoring the producer specialized in organic products.

Knowledge as a factor of choice.

Regarding knowledge not being a determining factor at the time of purchase, the results can be found in graph 14.



Graphic 14 - My knowledge of organic products is not a determining factor at the time of purchase.

Knowledge about organic products is a factor that never determines the decision at the time of purchase for 16% of people who checked option 1, just as it does not have as much influence for 11.3% of the population that opted for option 2; 13.8% answered option 3 that they do not use their knowledge at the time of purchase. For 21.1% who answered option 4 is an intermediate factor, for 13.8% who checked option 5 they use little knowledge to choose products at the time of purchase, while 13.8% who checked option 6 knowledge influences when choosing products and for 10.3% of the population knowledge in organic products determines the choice at the time of purchase.

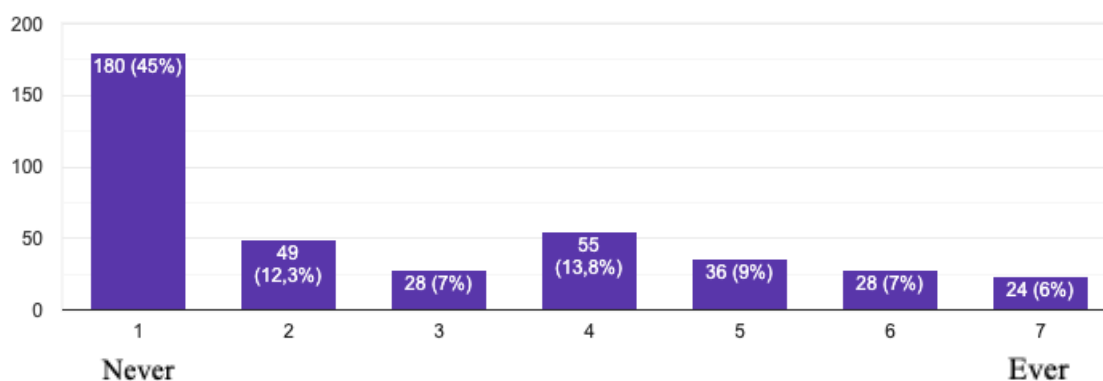
In the research conducted by Feyh, Lizana, and Carvalho (2022), the higher the education level of the sample, the greater the conscious predominance when purchasing an organic product. According to the study by Fernandes, Lunardi Rocha and Sama

(2020), variables such as schooling, income and age are apparently not related to a higher consumption of organic food by the sample.

In graph 14, the survey shows that knowledge about organic products is an important factor when choosing to purchase products, but it is not predominant, since knowledge about these products and their choice varies according to the respondents' education, income, habits, and age.

Pressure to consume

Regarding the pressure from society to purchase organic products, the results can be found in graph 16.



Graphic 15 - I feel pressured by society to buy organic products.

For 45% of the people who chose option 1, society does not interfere when purchasing organic products, however 6% of the population who selected option 7 receives great pressure from society at the time of purchase. For 12.3% of the population who selected option 2, and for 7% who chose option 3, social pressure is not a determining factor at the time of purchase, for 9% who selected option 5, societal pressure indirectly influences the time of purchase and 7% of the population who chose option 7 suffer from this influence and the other 7% who selected option 4 usually do not feel influenced by society at the time of purchasing the products.

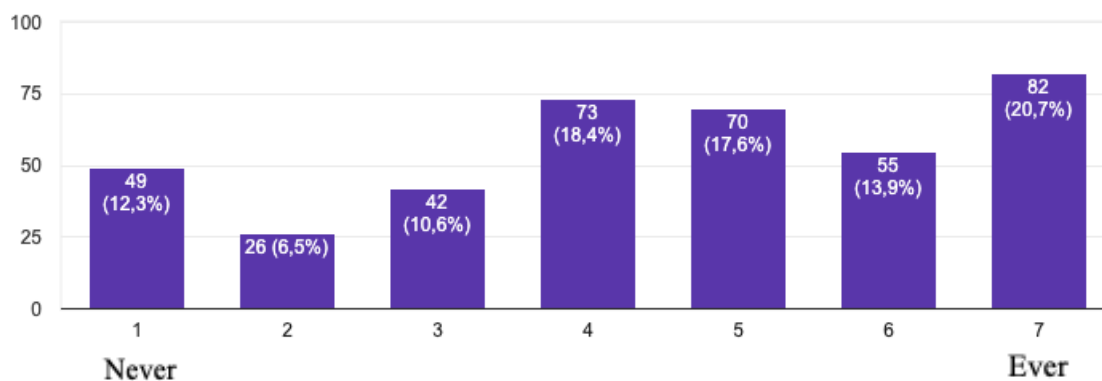
For Ceretta and Formming (2011), society has an influence on consumption habits, because cultural and regional factors are opinion makers, as they are passed down from generation to generation, showing that consumption brings benefits to both health and the environment.

In graph 15, the sample does not feel the pressure caused by society to purchase organic products, while for the authors above the result was the opposite because society

has an influence on consumption habits. In this case, diversification is more favorable, as the consumer buys what it finds most advantageous.

Healthy Awareness & Organic Products

Regarding healthy awareness as a determinant factor of consumption, the results can be found in graph 16.



Graphic 16 - My healthy conscience is a determining factor in my choice to purchase organic products.

Healthy awareness when choosing an organic product, for 18.4% who answered option 4, is an intermediate factor, for 17.6% who answered option 5 are already more favorable to healthy awareness, 12.3% who answered option 1 awareness about organic products is not a factor considered at the time of purchase, 20.4% who answered option 7, 13.6% who answered option 6, consider it a determining factor at the time of purchase, 10.6% chose both option 3 and 6.5% chose option 2 where they demonstrate that healthy awareness does not determine the purchase of organic products.

For Miranda, Alves, Silva, Pontes, and Martins (2022), it was found that most of their sample intend to increase the consumption of organic food, leaving evidence of a search for healthier and more ecologically correct consumption, which shows a change in people's eating behavior.

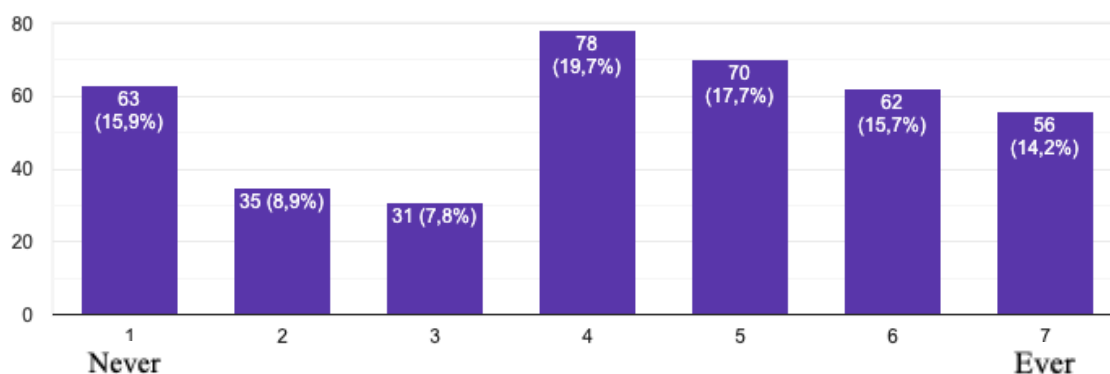
Towards Andetratta, Camara, Lago, Toledo and Azevedo (2020), healthy awareness is very strong, as 87% of respondents are willing to pay more for organic products, due to the health and environmental benefits.

In graph 16, the research shows that healthy awareness is a predominant factor at the time of purchase, the authors cited above bought this result considering that people seek a healthier consumption by improving their eating habits more without much

concern for environmental issues, so the specialization of organic products is more favorable.

Brand credibility

Regarding brand credibility at the time of purchase, the results can be found in graph 17.



Graphic 17 - The organic product brand generates credibility at the time of purchase.

The brand of the product for 15.9% of the population who opted for option 1 never interferes with the purchase, for 14.7% who answered option 7 was a factor that interferes when choosing products, for 19.7% who answered option 4 is an intermediate factor, 8.9% who answered option 2 show that the brand hardly interferes with the purchase, and 7.8% who checked option 4 have slight interference from the brand. The interference, unlike the 15.7% individuals who checked option 6 where respectively the brand has greater credibility at the time of purchasing the product, option 5 was chosen by 17.7% of the population which shows that eventually the brand matters at the time of purchase.

In the research carried out by Feyh, Lizana and Carvalho (2022), consumers take into account the information present on the label of the products marketed as certification seals and information such as the name and contact of the producer, this information added to the products increases the intention of individuals to consume this product.

For Almeida (2019), in his research, some interviewees reported that even the product containing certifications, when analyzing the way it is presented, causes distrust that that product is really certified.

In graph 17, the research shows that the brand generates credibility at the time of purchase, unlike what the authors above found in their research, for him, consumers take the information contained in the labels very seriously, such as certifications, where it is produced, this ends up giving confidence at the time of purchase.

In this case, the specialization of the organic producer is more favorable, as the food receives certifications that prove its quality.

4.2 DATA CORRELATION ANALYSIS

In the correlation analysis, the variables "I prefer to pay more for organic products because of the benefits I see in their consumption, than to consume non-organic products" and "My lifestyle influences me to buy organic products, even if they are more expensive than regular products" have a correlation value of 0.81, which according to the table show a strong correlation. In this correlation, we found a public with an income above 4 minimum wages that is willing to do this for the benefits found in the products, mainly influenced by the quality of life, respondents who value the consumption of these products have this factor related to their knowledge and the environment in which they were created.

The correlation of the variables "I only buy organic products because I care about my health" and "I prefer to pay more for organic products for the benefits I see in consuming them than to consume non-organic products" have a correlation value of 0.70, which according to the table show a strong correlation. The health factor and quality of life are the great influencers of this relationship, as the consumption of organic products is motivated by the benefits that this type of products bring to your life.

In the analysis of the correlation between the variables "Regardless of the opinion of others, I buy organic products" and "I prefer to pay more for organic products for the benefits I see in their consumption than to consume non-organic products" present a correlation value of 0.73, which according to the table present a strong correlation. The concern about consuming organic products is related to health, not to the opinion of others, because not even the price can reduce the consumption of organic products.

The correlation of the variables "Regardless of the opinion of others I buy organic products" and "I buy organic products because of the knowledge I have about them" have a correlation value of 0.76, which according to the table show a strong correlation. The above questions are correlated because knowledge favors the consumption of organic products, and the opinion of others does not interfere with this because the respondents recognize the benefits that the consumption of organic foods has.

4.3 DISCUSSION

Currently, consumers of organic products are increasingly aware of their benefits in general, this type of sustainable consumption has gained many followers, we have witnessed changes in the population's consumption habits influenced by the preservation of the environment, income, sex, lifestyle, health concern, among others.

In this context, the present study sought to verify the best production style between diversification or specialization based on the consumption habits of the residents of Corbélia-PR. The results showed a strong influence of health, this concern with health is one of the main motivators for the consumption of organic products, as they believe that food grown without the use of pesticides is healthier and more nutritious. Another factor was knowledge, well-informed consumers understand the impacts of production methods on their health and the environment so they are more likely to purchase organic products. The protection of the environment is a key factor, consumers are increasingly concerned about the negative impact caused by agricultural productions and therefore opt for organic products claiming that the more they consume pesticide-free products, the more they will be contributing to a healthier lifestyle in the long run. Income proved to be a determining factor in the choice of organic products, as they have a higher cost for the consumer, those who prioritize this type of food claim that quality and health benefits are the reasons that influence this consumption and do not mind paying more for these products. These were the factors that influenced Corbellia consumers. Most of these respondents are female, single, aged between 26 and 35 years, with a level of education, graduation and income between 1 and 3 minimum wages.

In the correlation analyses carried out from the questionnaires, we can conclude that the variables with the highest correlation factor found are favorable to the specialization of organic production, because the consumer who has knowledge about the product knowing the benefits of consumption for his health, chooses to pay more for products of organic origin.

Farmers who specialize in organic produce often develop specific expertise in food production, this results in high quality as they are grown according to agricultural practices that emphasize sustainability. With increased awareness of health and the environment, specialized farmers can position themselves to meet this specific market demand, thereby increasing their market opportunities and better prices for their products. Organic certifications can secure a competitive advantage, which increases consumer

confidence and opens doors to markets that value certifications that value certified organic products.

From these factors we can conclude that the specialization of organic production is favorable for producers who practice it, because it is a product that does not use chemical fertilizers and fertilizers, prevents the health of those who consume it, consequently, protects the environment, with this the product has greater commercial value, and can be marketed with a higher value than conventional, thus generating a higher income for the producer (Milverstet; Fachinello, 2019).

5. FINAL CONSIDERATIONS

Based on the results of the research, evaluating the issues of sustainability and consumption habits, the specialization is more favorable for organic producers in the municipality of Corbelia-PR, due to factors such as price, quality of life and protection of the environment, which were presented as consumption markers by the respondents, where they choose to pay more for organic products, referring to health benefits, On the other hand, producers are able to increase their income and expand their business, generating more value.

Based on the results obtained here, we can suggest to producers that they reinforce the benefits of the consumption of this type of food providing better health, pesticide-free production.

The benefits found in this research were the union of aspects such as sustainable consumption, quality of life, health, sustainability and specialization of family farming. The results of this research show the factors that matter and influence consumers when purchasing a product of organic origin, which serve as data to be analyzed by organic producers.

To suggest future work, we suggest more specific studies on specialization and diversification of organic producers, because this type of production faces several risk factors in its production and we analyze here factors that influence the consumption of the final product, with other research we could further refine our knowledge helping producers to have more plausible answers. Another limitation found was that most of the literature is focused on the specialization and diversification of limited partners, as they have a greater representativeness in the economic scenario.

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APPENDIX A – QUESTIONNAIRE

1. Sex

- Female
- Masculine

2. Estado civil

- Married
- Single
- Separate
- Divorced
- Widower

3. Age range

- Under 18 years of age
- 19 to 25 years old
- 26 to 35 years old
- Over 35 years old

4. Schooling

- Elementary School
- High School
- Graduation
- Post-graduation

5. Income

- up to 1 minimum wage
- from 1 to 3 minimum wages

from 4 to 5 minimum wages

from 6 to 10 minimum wages

6. Stop buying from a company that shows disrespect for the environment.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1	2	3	4	5	6	7	
Never						All the time	

7. I change brands to buy from companies that show greater care for the environment.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1	2	3	4	5	6	7	
Never						All the time	

8. My lifestyle influences me to buy organic products, even if they are more expensive than regular products

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1	2	3	4	5	6	7	
Never						All the time	

9. I'd rather pay more for organic products for the benefits I see in consuming them than consume non-organic products.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1	2	3	4	5	6	7	
Never						All the time	

10. The brand of an organic product is not relevant at the time of purchase

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1	2	3	4	5	6	7	
Never						All the time	

11. I only buy organic because I care about my health

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1	2	3	4	5	6	7	
Never						All the time	

12. I buy organic products for the knowledge I have about them

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1	2	3	4	5	6	7	
Never						All the time	

13. Regardless of other people's opinions, I buy organic products

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	7
Never						All the time

14. Regardless of my lifestyle, I don't buy organic products

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	7
Never						All the time

15. Regardless of whether the product is organic or not, what matters to me is the price.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	7
Never						All the time

16. I'm not influenced to buy organic products, even though they're healthy products

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	7
Never						All the time

17. When I go to buy a product, I don't think about the impact it has on the environment

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	7
Never						All the time

18. Concern for my health doesn't interfere with choosing organic products

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	7
Never						All the time

19. My knowledge of organic products is not a determining factor at the time of purchase

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	7
Never						All the time

20. I feel pressured by society to buy organic products

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	7
Never						All the time

21. My healthy conscience is a determining factor in my choice to purchase organic products.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1	2	3	4	5	6	7	
Never						All the time	

22. The organic product brand generates credibility at the time of purchase

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1	2	3	4	5	6	7	
Never						All the time	