


## ARTICLE

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## COMMUNITY-SUPPORTED AGRICULTURE (CSA) AS AN ALTERNATIVE MARKET SYSTEM: AN APPRECIATION-BASED ACTIVIST ORDER OF WORTH


*Comunidade que suporta a agricultura (CSA) como um arranjo de mercado alternativo:  
uma ordem de valor ativista baseada no apreço*

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### ABSTRACT

In the context of constructivist market studies, this research aims to understand how value is calculated in alternative agrifood markets, more specifically in the community-supported agriculture (CSA) market system. Methodologically, this qualitative study was based on observation, document analysis and interviews, and the study subjects were actors from various Brazilian CSA communities. The results showed that the CSA system is based on an activist order of worth (Lindberg & Mossberg, 2019), which affects the value calculations performed by the agents. In addition to calculations present in conventional markets (quantitative, qualitative and collective – Cochoy, 2008), the CSA system fosters a new type of calculation, herein termed appreciation calculation, which considers various social and environmental benefits of the system. Thus, CSA members incorporate appreciation calculation into other calculation methods when making decisions on whether to join and remain in the community. The article contributes to market studies by presenting a peculiar system that challenges the prevailing logic, thereby improving our understanding of how ideological issues are incorporated into market practices.

**KEYWORDS:** Constructivist Market Studies, Actor-network theory, Convention theory, valuation, alternative food markets.

### RESUMO

Essa pesquisa se insere no ramo dos Estudos Construtivistas de Mercado, e teve como objetivo compreender como os cálculos de valor são performados em mercados agroalimentares alternativos, mais especificamente no arranjo de mercado do tipo Comunidade que Suporta a Agricultura (CSA). Em termos metodológicos, o trabalho, de natureza qualitativa, se baseou em observação, análise documental e entrevistas, tendo como sujeitos de pesquisa atores de diversas CSA's estabelecidas no território brasileiro. Verificou-se que o arranjo CSA se baseia numa ordem de valor ativista (Lindberg & Mossberg, 2019), que afeta os cálculos de valor performados pelos agentes. Além dos cálculos presentes nos mercados convencionais (quantitativo, qualitativo e coletivo – Cochoy, 2008), o arranjo CSA estimula um novo tipo de cálculo, que denominamos de cálculo do apreço, que leva em conta os diversos benefícios de ordem social e ambiental do arranjo. Assim os membros da CSA incorporam o cálculo do apreço às outras formas de cálculo ao tomarem decisões sobre a entrada e manutenção na comunidade. O artigo contribui para os estudos de mercado ao apresentar um arranjo peculiar, que desafia a lógica estabelecida, permitindo uma melhor compreensão de como questões ideológicas são incorporadas nas práticas de mercado.

**PALAVRAS-CHAVE:** Estudos Construtivistas de Mercado, Teoria Ator-Rede, Teoria das convenções, cálculo de valor, mercados agroalimentares alternativos.

## 1 Introduction

Marketing studies have furthered our understanding of how actors perform and influence the market format (Finch, Geiger & Harkness, 2017), recognizing the limitations of market concepts arising from neoclassical studies and bringing new perspectives to the analysis, such as the new institutional economy, economic sociology, behavioral economics, and science and technology studies (Mele, Pels & Storbacka, 2015). The development of new marketing theories, focused on market complexity, brings a new perspective into market evolution and reconstruction, thus enabling us to understand market dynamics. This line of research has been called market studies, market-making studies or constructivist market studies.

This field of study is based on the understanding that markets are not concrete data but instead continuous representations involving various actors, each one with specific interests and influences (Geiger, Kjellberg & Spencer, 2012). The field emerged from seminal studies, such as those by Kjellberg and Helgesson (2006), Araujo (2007), Araujo, Finch and Kjellberg (2010) and Çalişkan and Callon (2010). These studies identified the need to develop a theory for addressing the dynamics of everyday events and processes that shape markets.

Henceforth, markets are no longer regarded as pre-existing models and start to be studied empirically (Frankel, 2018). For these scholars, markets are somewhat broader, encompassing various complex interactions, and are always in development based on the practices performed by the actors operating within them (Baker, Storbacka & Brodie, 2018).

Markets are in constant transformation, and new systems may emerge as a reaction to consolidated dynamics. For example, in agrifood markets, various systems known as “alternative agrifood markets” proliferated in recent decades as a reaction to the mainstream conventional model (Dalmoro & Fell, 2020). One of these systems is community-supported agriculture (CSA). In CSA, a group of consumers, called co-farmers, directly supports the farm, commits to funding the harvest and, in return, receives food grown by the farmer during that time. Unlike other retail formats, in the CSA model, farmers receive from co-farmers an investment to finance production, and both share the operational risks and benefits (Yu, Campbell, Liu & Martin, 2018).

In market studies, CSA can be considered a market system – formed by a set of human and nonhuman elements – that stems from the agency of various actors (Callon, 1998).

Among the actions of market actors, value calculation results from sociotechnical systems whereby goods and services are qualified and become able to be traded (Callon & Muniesa, 2005; Cochoy, 2008).

The literature on value calculation points to factors such as the complexity of the calculation mechanisms and what can or cannot be “calculated” (Callon & Law, 2005) and the diversity of forms of calculation in different situations (Cochoy, 2008). In this sense, there are foundations in the literature to believe that the value calculations are performed differently in different markets, following their own logic. Thus, this article aims to answer the following question: How are value calculations performed in CSA market systems, whose retail logic differs from that of conventional markets? Accordingly, CSA markets likely have value calculations different from those of conventional markets, which is the key reason why

this system stands out. A singular value calculation was identified, which was called “appreciation calculation”, and which constitutes a contribution to the field of studies.

## 2 Constructivist Market Studies

Constructivist market studies derive from science and technology, economic sociology and marketing studies and have produced, in recent years, a significant body of knowledge on practical issues in the formation and development of markets, considering both human actors and material devices and their agency (Araujo, Finch & Kjellberg 2010; Muniesa, Millo & Callon, 2007).

Araújo (2007) presents the sociological perspective associated with the theories of Michel Callon to argue that market construction depends on the mobilization of specialized bodies and calculation agencies. This sociological view recognizes that practices are responsible for shaping markets, and as practices change so do markets, and vice versa (Baker, Storbacka & Brodie, 2018). Accordingly, markets should be studied as spaces of multiple and often conflicting practices, focusing on the ways in which markets change as a result of efforts to shape them (Araujo, Kjellberg & Spencer, 2008). Thus, constructivist market studies aim to understand ongoing actions or market practices that may change relationships, remodel structures and redefine interactions, influencing their formation and evolution (Nogami, Vieira & Medeiros, 2015).

### 2.1 Value calculations and representations

To embrace the notion that nonhuman actors are able to influence the market as much as human actors requires understanding the notion of *calculation* (Callon & Muniesa, 2005), or value calculation, as translated by Oliveira and Rezende (2017). According to Callon and Muniesa (2005), market entities are responsible for performing value calculation processes, which result in practical solutions to market problems, ensuring their efficacy. Accordingly, calculation is the result of sociotechnical systems, and goods and services are qualified through complex attachment and detachment operations performed by people and things, which can be translated into calculating and calculable beings (Muniesa, Millo & Callon, 2007).

While economics provides pure calculation and social sciences try to show that market practices are complex and heterogeneous, Callon and Muniesa (2005) bring a renewed perspective of calculation that goes beyond the dichotomy between quantitative and qualitative aspects, between judgment and calculation, and between economics and sociology, to recognize the existence of calculative practices. Thus, calculation processes cannot be taken for granted because they are difficult cognitive operations, involving different skills, actors and tools that enable them (Cochoy, 2014).

Value calculation begins by making distinctions between things or states of the world and by imagining and estimating courses of action associated with those things and states, as well as their consequences. To be the object of calculation, entities must be stabilized and highlighted. Material devices assist in this calculation, which can approximate both an algorithmic formulation and pure intuition or judgment (Callon & Muniesa, 2005).

Cochoy (2008), in a study on retail stores, shows that value calculation can be performed in three ways: ‘calculation’; ‘qualculation’; and ‘calquation’, or, as translated by Oliveira and Rezende (2017), ‘quantitative calculation’; ‘qualitative calculation’; and ‘collective calculation’. Quantitative calculation is based on product price (economic reference); qualitative calculation is based on material properties, metrics and judgments involved in the valuation process; and, in turn, collective calculation is related to the underlying social relations (Cochoy, 2008). This triad connects the rational aspects of choice

to the properties of mundane and material configurations and to the social environments of the consumer (Cochoy, 2008).

Value calculation addresses ways to create spaces for performing calculations, understanding how entities interact in these spaces, what alternatives actors have, and how qualitative judgments are made by actors (Onyas, McEachern & Ryan, 2018). A market transaction involves the transfer of a commodity (good or service) from a seller to a buyer, requiring three elements: goods, agents and exchanges (Callon & Muniesa, 2005). Exchange requires meeting three conditions in this process: objectification (transforming the commodity into a good), singularization (becoming unique to the consumer) and the co-elaboration of properties (the good leaves the world of supply and fits into the world of the buyer) (Callon & Muniesa, 2005).

Price representation is decisive in the process of qualifying goods, temporarily assigning a set of characteristics to one entity in relation to another for the purpose of exchange (Hagberg & Kjellberg, 2015) becoming a key reference for value calculation by the various actors. Price is a form of representation, among many others, that influences value calculation. Representations are especially relevant in markets based on ethical aspects, such as CSA, which attempt to incorporate values usually disregarded in worldly transactions.

## 2.2 Conventions and different “worlds” of justification

Lindberg and Mossberg (2019) suggest an alternative perspective for market research, incorporating principles of the Convention Theory (Boltanski & Thévenot, 2006) and focusing on consumption regimes, or orders of worth: moral principles, which modulate engagement in a given “world” (Thévenot, 2007), coordinating social relations in a market, or, more specifically, in a consumer community.

Consumer communities encompass consumer groups with common social bonds and united around similar preferences and/or lifestyles (Lindberg & Mossberg, 2019). Accordingly, CSA systems fit into the concept of consumer community (with a peculiarity: production within the community). Orders of worth highlight the rules that coordinate individual actions (Benmecheddal & Özçaglar-Toulouse, 2015). The dispute for legitimacy between value regimes is present in society and in specific consumer communities.

Boltanski and Thévenot (2006) state that a plurality of orders, or justification regimes, are used in the social world and in consumer communities. The convention theory focuses on the plural logic of practice and on how consumers cope with tensions to justify their actions. Based on the central thesis of this theory, social systems consist of common worlds or orders of worth, which are high-order principles based on which actors justify their engagement. The following six orders were identified by the authors: a) inspiration (grace, nonconformity and creativity), b) domestic (esteem and reputation), c) fame (recognition), d) civic (collective interest), e) market (wealth and competition) and f) industrial (productivity and efficiency) (Boltanski & Thévenot 2006).

Consumers mobilize orders of worth to make quality judgments during consumption, regarding this individual consumption as a dynamic engagement whereby the environment “responds” to consumers and consumers take into account these “responses” (Lindberg & Mossberg, 2019).

Justification processes, or value tests, are performed through changes in practices in which the quality of objects/products should be determined in accordance with the invoked value system (Boltanski & Thévenot, 2006). This perspective, for example, provides a new interpretation of activism, focusing not on the various ideologies but on the orders of worth

that coordinate this activism (Benmecheddal & Özçaglar-Toulouse, 2015) and make it possible to build a new market.

Based on order models, Benmecheddal and Özçaglar-Toulouse (2015) introduce the term “activist order”, composed of rules that coordinate activist practices and help to justify their practices and to substantiate criticism of other orders of worth, such as the market order. The activist order is fundamentally based on values from the civic and domestic worlds.

### 3 Alternative Agrifood Markets

The conventional agrifood sector is strongly associated with technological changes aimed at increasing productivity and profitability in farming and in food distribution systems. However, this productivist paradigm has been challenged by issues such as sustainability and social justice, transforming market configurations (Thompson & Coskuner-Balli, 2007; Nemes & Augustyn, 2017) and giving rise to several forms of alternative cooperation that bring together various actors to face their challenges (Nemes & Augustyn, 2017).

Thus, studies have been conducted to understand the construction and development of alternative agrifood markets in different contexts (Le Velly & Dufeu, 2016; Thompson & Coskuner-Balli, 2007; Neyland & Simakova, 2010). In Brazil, Oliveira and Rezende (2017) use the perspective of agency to describe how value calculation is performed in an open-air market through interactions between several actors present in those markets.

Product quality and the nature of transactions in alternative agrifood networks can be evaluated in several ways. Fair trade, for example, seeks to insert a world into a product. The articulation of externalities in the calculation process involves deliberation on whether practices are fair enough and whether communities are actually benefiting from such practices. The citizen-consumer involvement is reallocated (Neyland & Simakova, 2010). Other alternative systems also establish their own forms of agency to incorporate an activist order of worth, such as CSA.

#### 3.1 CSA – an alternative market system

The term “community-supported agriculture” was coined by the farmer Jan Vander Tuin, in the United States, in 1986, to designate a model of agricultural cooperation based on a fair economy. CSA is an alternative farming and distribution system aimed at sharing the risks and rewards of agriculture between farmers and consumers on a more equitable basis (Gorman, 2018). CSA is a movement that values farmers, brings farmers and consumers closer, stimulates the local economy and values the environment. In a CSA system, a group of consumers, known as co-farmers, directly supports the farm, commits to funding the harvest, and, in return, receives the food grown by the farmer during that period (Yu *et al.*, 2018; Press & Arnould, 2011).

The CSA philosophy emerged in a scenario in which organic food markets were incorporated into conventional markets. This new system aimed to avoid the co-opting of organic food by conventional markets, reaffirming the original values and ideas of the pro-organic movement (Thompson & Coskuner-Balli, 2007). Thus, consuming organic or natural products no longer sufficed; they had to be consumed from a particular philosophical basis, through specific practices different from conventional agriculture. This philosophical basis is commonly known as the logic of “appreciation” of CSA actors, highlighting that these communities use other references beyond price (Junqueira & Moretti, 2018). The first Brazilian CSA was founded in 2011, in Botucatu – São Paulo (SP). A milestone in the development of this movement in the country was the establishment of the *Associação*



*Comunitária CSA Brasil* [CSA Brazil Community Association], an entity created to promote and foster CSA growth in Brazil (CSA Brasil, 2019).

#### 4 Research Methodology

Social reality is a continuous process of creation and is constantly being shaped by the various associations that represent it, which characterizes relativistic ontology. In line with Kjellberg and Helgesson (2006), we also believe that social practices enact multiple realities, to which different truths can be decreed, leading to a realistic epistemological orientation. The combination of ontological relativism and epistemological realism is termed practical constructivism, which assumes that social reality is constructed, in contrast to social constructivism, which assumes that reality is socially constructed (Kjellberg & Helgesson, 2006) with the primacy of the human element.

In methodological terms, this research is qualitative and descriptive. As methodological procedures, different data collection methods were used to triangulate the data. Data were collected using the following techniques: direct observation and participant observation, document analysis and interviews.

Observation was performed in two stages. In the first stage, participatory observation, one of the authors attended the CSA training course offered by CSA Brasil, from May 23 to 27, 2018, in the city of Botucatu-SP. In the second stage, direct and non participatory observation, the authors visited some CSA communities from June to August 2018, observing the following activities: general meetings; basket deliveries; farmers' work in the field; and field days with the co-farmers. All observation stages were duly recorded in field diaries, photographed and taped, when appropriate, for further analysis.

For the document analysis, we collected documents to describe the history of the study markets and to assess the practices of its actors: general assembly memoranda and deliberative assembly minutes, statutes and rules that regulate their operations and conduct, terms of commitment, financial controls and promotional materials, among others. These documents were collected from members who work directly as CSA community organizers.

Two types of interviews were conducted, according to the distinction made by Arsel (2018): ethnographic interviews, consisting of short, sporadic and informal conversations with research subjects, conducted during participant observation; and formal interviews, which were scheduled with the subjects and followed a predetermined script for a broader understanding of the object of study.

The research subjects were CSA Brasil managers/members and people involved in some capacity with CSA in Brazil, whether as a farmer, co-farmer or organizer. The interviewees were first contacted during the CSA training course. The course participants were selected as the first interviewees because they could be easily contacted and the group included people from different locations in the country, increasing the diversity and scope of the research. After the interviews were conducted, the informants were asked to indicate other actors who could be interviewed.

To conduct the formal interviews, the data collection instrument was built based on theoretical assumptions about value calculations. To cover the specificities of each CSA community and each type of actor, four different interview scripts were developed. The in-depth interviews were conducted face to face and, in some cases, via Skype® because CSA communities are spread throughout Brazil. The interviews lasted, on average, 1 hour and 30 minutes.

Altogether, data were collected from 28 people involved in CSA communities throughout Brazil, of whom 20 were formally interviewed. To maintain their anonymity, the actors were categorized based on their role: Farmer, Co-farmer, CSA Organizer or CSA Brasil Member.

Data from the data collection were transcribed and organized to compare and characterize the value calculation elements, following the principles of content analysis by mixed grid.

## 5 Value Calculation in CSA Systems

CSA philosophy is the foundation that justifies implementing such a market, which revolves around consumer community/production. Interview excerpts reported below show that various elements are internalized by the members of a CSA community and that they revolve around values such as environmental concern, contact with nature, valuing food and local culture and social ties.

“You start eating food differently. You start to interpret the food. It will taste better on your plate. You participated. You know where it came from, how long it took to grow that seedling you put in the soil and took care of until it reached your table. Food takes on another meaning” (CO-FARMER 04).

“What changed the most for me was the possibility of getting to know the lives of these people, understanding this reality and getting closer [to them], to consume better products.” (CO-FARMER 01).

Accordingly, the CSA philosophy is guided by a worldview that combines domestic and civic aspects, forming an activist order of worth. In this community, closeness and social ties between farmers and consumers are valued, as well as important ethical issues for the common good, such as environmental conservation.

Accordingly, this domestic or kinship world is incorporated into the CSA system and, consequently, into the traded products. Ideological principles are both the starting and reference point for establishing the markets, which, in practice, require calculation mechanisms to align production, distribution, purchase and consumption with such principles. Calculations are performed at different times, including when deciding to become a co-farmer, when collecting a basket of products and assessing their quality, and when price adjustments are negotiated, among others.

An *a priori* calculation is made by both farmers and co-farmers on whether or not to join the community. Farmers weigh benefits and difficulties, such as concerns about crop quantity and diversity, financing, guarantees and stability. In turn, co-farmers reflect on the quantity, diversity and quality of the food that they receive and on the financial value to be disbursed, in addition to considering food cost and quality in other markets and issues related to environmental sustainability and to the living conditions of the farmer.

Establishing a CSA community requires conducting a detailed cost-benefit analysis and ensuring transparency in the information that is shared among members. CSA Brasil member 01 highlights that the costs are analyzed by the actors present in the community, considering all farming devices needed during a given period:

“This analysis is performed by several people, including farmers; they have the data... on local costs and needs (...) so you have to think about everything you need to grow the crop (...) and you take this agricultural year, divide this amount by the number of families, and then you arrive at the sustaining value of a plot.” (CSA BRASIL MEMBER 01).

The report by CSA Organizer 04 demonstrates how shares were set when the CSA community was established.

"I remember that we had some materials from other CSA communities, to take as a reference (...) but the basket was priced with the help of Mr. Producer and his daughter (...). So, we decided more or less the price that was fair with them, based on the price that they already used [to ask for a basket]" (CSA ORGANIZER 04).

Price representation (Hagberg & Kjellberg, 2015) works differently in CSA communities. Thus, quantitative calculation, which encompasses the notion of the price/cost that the co-farmer sets within the CSA, does not allow an easy comparison with market alternatives. Although co-farmers are aware that when entering the community other relationships should be valued, they continue to purchase food in the traditional market and, thus, maintain the notion of price derived from this market. For example, stating 'I paid R\$4.00 for a head of lettuce in the CSA' is nonsensical because in this market system, co-farmers do not pay for a single good but for the entire agricultural production of that organism.

Thus, in CSA, pricing basically involves surveying the total costs and expenses of the agricultural organization; those costs and expenses will be apportioned in shares among the co-farmers. Co-farmers will share the results of both the harvest and other products, should the farm offer them. This is a fundamental difference between CSA and conventional systems, which are governed by market and/or industrial orders of worth, and even other alternative systems that follow the domestic logic (such as farmers' markets and fair-trade products, for example) because, in all these cases, worth is embedded in the price of the good and allows direct comparisons between different alternatives and distribution channels.

Comparing quality between products offered in CSA and products found in other markets, in turn, is easier. The co-farmer is attentive to the quality of the food and to its organoleptic properties (aroma, color, texture, size and flavor) to determine whether participation in CSA is worthwhile. This assessment is made both when sharing and when preparing and consuming food:

"When people saw that withered orange, they regarded it as spoiled. It is the same orange that I am selling at the farmers' market. But [at the farmers' market], I am there to explain the difference between rotten and wilted oranges."

"I got a call from a person, who suggested that people were getting too many leaves. (...) It was arriving spoiled [at the time of sharing], and people were not taking them (...)"

These examples illustrate how co-farmers perform calculations through the perception of quality and quantity (which, if high, can lead to a loss of quality over the time it will take to eat), demonstrating their dissatisfaction when their expectations are not met. According to the interviewee CSA Organizer 01, one must be careful with the narrative used for products from alternative agriculture given that because they do not meet the standards desired by the conventional market, this produce can be confused with inferior products (small, with some defects).

Qualitative calculation is also based on other dimensions, including volumetric parameters, incorporating devices such as the blackboard or lists, scales, boxes and bags, which help the actor assess the value of the basket. These devices play a key role because



they become a reference for the amount of food to be taken given the inability to perform, at this moment, quantitative calculations in terms of cost.

When taking the baskets, in a CSA community, value can be calculated: by volume, that is, the shares are divided by evaluating the size of the food so that each co-farmer takes the equivalent to the same share; by unit, with each share entitling co-farmers to a specific unit quantity of items; or by weight, using a scale. In a fourth alternative, the shares are already previously separated into boxes or bags (also volumetric calculation), and the co-farmer is only responsible for collecting them. These value calculation mechanisms are not used in isolation, and each CSA can use a combination of these to compose the share (for example: two heads of lettuce - unit; 600 grams of carrots - weight).

Last, collective calculation encompasses consumer social interactions and behavior. Usually, when fetching the basket, a co-farmer who requests only one share is more interested in the items of the second share. In a supermarket setting, the co-farmer would be able to include these foods in a shopping cart, as noted by Cochoy (2008). In CSA, however, the co-farmer is not allowed to do so because changing the share could disadvantage another family. The issue of share sharing is complicated, and farmers face several difficulties in trying to ensure a fair division:

"Then, there is the question of shares. (...) Share 2 families are entitled to add more volume. They are usually larger families, or they do not eat meat, so they need more vegetables. If the family is small, they select share 1. Sometimes share 2 is more interesting, then the person from share 1 says: 'Can I get share 2?' 'No, because if you take share 2, someone's share 2 will be downgraded to 1'. 'Ah, I just found it more interesting'. 'Do not worry, next week it will change completely'. That is the process. [The shares] are what the vegetable garden provides." (FARMER 01).

CSAs are communities and, as such, the moment of sharing baskets, which resembles a supermarket environment, also becomes a moment of meeting and interaction among members, strengthening their relationships. These relationships make it possible to perform value calculations through the exchange of information among members, as in the reported case in which, on the day of sharing, one of the co-farmers taught the others to can Swiss chard. This is a very large vegetable, and many families are unable to fully consume it, leading to food waste. Thus, learning canning would be a way to avoid food waste, which is reflected on the value calculation performed by the co-farmer.

Although CSA communities have many positive points, for both farmers and consumers, some challenges must still be overcome if communities are to strengthen and gain more followers in Brazil. One of these points is the internalization of the CSA philosophy by its members.

In some cases, as observed in the findings, members left the community precisely because, after comparing the CSA market with other types of markets using various value calculations, they realized that 'the cost of the food was not paying off' or that they 'get a lot of food that [they] do not/cannot eat'. Conversely, some co-farmers also think that 'this month, it did not pay off; I did not receive enough food, but next month it will be better'. Therefore, the statements clearly show that quantitative calculation is recurrently applied in the context of CSA communities.

CSA Organizer 03 indicates the difficulty that some members have to truly commit to CSA, which becomes a considerable challenge to overcome in terms of the community.

“Because as an organizer, you know, we envision that people will join, get involved and take responsibility, but then I started realizing that people still do not interact much with the farmer...” (CSA ORGANIZER 03).

Accordingly, in several cases, the philosophy is not fully incorporated into the process of valuing the system and its products. As in every consumer community, some members are more engaged than others.

In CSA communities, the value calculation and pricing process is unique and complex, and theory cannot explain this particular system. One of the most unique characteristics is that the reference price is the share, which **is decoupled from the good**, as previously indicated.

Accordingly, we observed the presence of the three types of calculations identified by Cochoy (2008), also demonstrating that the CSA principles act as guidelines and are incorporated into not only the products but also the entire CSA community as values of a domestic/civic world. Accordingly, we proposed to add a fourth element of calculation, which we term appreciation calculation.

Appreciation calculation considers system representations (activist order of worth) and results in engagement with the market, regardless of price, quality, cost benefit, or the influence of third parties in the decision-making process. This new calculation was called appreciation calculation because appreciation was identified in the culture of the community, becoming a strong representation of the CSA market. By bringing the “world of appreciation” to the CSA system, the culture is incorporated into the value calculation, and this “appreciation calculation” becomes a reference on which other calculations are based. The importance of appreciation calculation will vary with consumer engagement. Many consumers, who continue to buy part of their food in conventional channels (governed by a market logic), may prioritize other types of value calculation.

Another particularity of the CSA system is the mitigation of the seller × buyer dichotomy, usually present in the market. The active co-farmer helps to build value together with the farmer. As a result, the logics of value are similar and seek a compromise solution for those involved in the system.

In parallel to the study by Hagberg and Kjellberg (2015), **appreciation in CSA communities is a form of price representation** by including the complexity of market elements that lead the consumer to make the decision to be part of the community in the process of valuing a good (or more precisely, a set of goods). In this new calculation format, the consumer is more tolerant of product pricing, avoiding (which does not mean that some members do not do it) value comparisons, as those in the traditional market, because the result of the calculation considers that this value goes beyond costs (quantitative calculation), quality judgments (qualitative calculation) and social relations (collective calculation), also encompassing the various elements of the “worlds” incorporated into this system, such as environmental concerns and the appreciation of land and food, with effects on healthcare and food. In this sense, we can make a parallel with what Callon and Law (2005) call “rarefaction”, a property of value calculations in which elements of “passion” lead to the obscuration of traditional calculation and a process of being carried away by something greater connected to a belief. Callon and Law (2005) highlight that this “non-calculation” also involves material and discursive practices that support it. We propose that these practices are at the heart of the CSA philosophy and support appreciation as an usual calculation format within the arrangement.

When analyzing these representations, co-farmers consider that even if the quantitative, qualitative and collective calculations are negative - either because food is left

over and rotting at home, the orange is withered, someone does not like mustard greens or the CSA system is ultimately becoming expensive - there is a reason to remain in the community because they believe that this market model brings benefits to smallholder farmers, to society, to the environment and to their health.

Appreciation calculation appears, then, as a way to value these representations, resignifying the value calculation in an activist perspective, as advocated by Lindberg and Moss (2019), and in order to incorporate “worlds” with different logics (Boltanski & Thevenot, 2006).

## 6 Final Considerations

We believe that in the CSA system, the trilogy of value calculation, as defined by Cochoy (2008), overlooks some market issues. Because these concepts may also be applied in the context of other markets, proposing appreciation as a new form of value calculation may be an important contribution to the field of constructivist market studies towards understanding the *modus operandi* of markets based on domestic/civic worlds and on an activist order. People continue to “juggle” several orders of worth or to “navigate” between the market order and the activist order, as advocated by Benmecheddal and Özçaglar-Toulouse (2015).

In Brazilian CSA’s, the training course is the main device and works as a discussion forum. However, the issues are raised at local forums, where the co-farmer can play a much more active role and be more engaged than the consumer of fair trade or organic products (Rezende, 2014). Fair trade emerged as an alternative relationship between consumer and product in which products were sold in small stores. Gradually, however, fair trade was absorbed by large retailers. In turn, the CSA system, by its very nature, is less subject to such an incorporation and is thus an alternative market relatively immune to co-opting by large companies, for carrying elements of passion and belief (Callon & Law, 2005) as constituents of the mechanisms for calculating value.

This article contributes to this field by improving our understanding of the relationship between markets and consumer communities based on activist orders of worth (domestic and/or civic). In practical terms, the philosophy must be adopted and valued (appreciation calculation), serving as a new reference that is added to the traditional forms of calculation (which continue to be used) and influences them. Moreover, these tensions between the alternative and the conventional (hegemonic) world persist from the perspectives of both consumers and producers, and multiple dimensions can coexist in a market (Dalmoro & Fell, 2020), especially when the alternative system grows and begins to attract the attention of big players. In addition to the simplistic alternative x hegemonic market dichotomy, efforts should be made to unveil the dynamics and controversies that are characteristic of each market system, for example, by analyzing how the value calculation is performed. It should also be noted that the incorporation of the theory of conventions in market studies presents itself as a promising research agenda, as the plural logics that support the practices can be better understood through the “worlds” of justification and their foundations.

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Contribution	Daniel Rezende	Caroline Paiva	Paulo Leme
1. Definition of research problem	✓	✓	✓
2. Development of hypotheses or research questions (empirical studies)	✓	✓	✓
3. Development of theoretical proposition (theoretical studies)			
4. Theoretical foundations / literature review	✓	✓	✓
5. Definition of methodological procedures	✓	✓	✓
6. Data collection / fieldwork		✓	
7. Analysis and interpretation of data	✓	✓	✓
8. Revision of the manuscript	✓	✓	✓
9. Manuscript writing	✓	✓	✓