

REUNIR:

Journal of Administration, Accounting and Sustainability



www.reunir.revistas.ufcg.edu.br

ORIGINAL ARTICLE: Submitted in: 05.31.2024. Rated on: 08.03.2024. Suitable for publication in: 11.04.2024. Responsible Organization: UFCG.

Platform cooperatives and bike delivery: a viable alternative delivery economy?

Cooperativas de plataforma e os entregadores por bicicleta: uma economia de entrega alternativa viável?

Cooperativas de plataforma y los repartidores en bicicleta: ¿una economía de reparto alternativa viable?

Ana Caroline Ramos Rocha

Universidade Federal de Pernambuco-UFPE Avenida Prof. Moraes Rego,1235, Cidade Universitária Recife-PE, Brazil – ZIP Code 50.670-901 https://orcid.org/0000-0003-2701-3605 ana.crocha@ufpe.br

Débora Coutinho Paschoal Dourado

Universidade Federal de Pernambuco-UFPE Avenida Prof. Moraes Rego,1235, Cidade Universitária Recife-PE, Brazil – ZIP Code 50.670-901 https://orcid.org/0000-0001-8316-8551 debora.cpdourado@ufpe.br





KEYWORDS

Platform Cooperative. Delivery People by Bike. Precariousness of Income. Abstract: Society is immersed in a crisis of multiple dimensions. The effects of digitalization highlight the economic dimension. In Brazil, the delivery sector is controlled by the applications that influence the generation of precarious jobs. However, delivery platform cooperatives emerged as the democratic labor governance alternative. In this article, we aim to analyze the working conditions and income in the delivery economy that can lead to sustainability, from the perspective of the delivery cyclists of a delivery cooperative in São Paulo-SP. For this purpose, this study adopted basic qualitative research (Merriam, 2009), with data collection through participant observation and open interviews, and thematic content analysis (Bardin, 2011). The results indicate that the collective ownership of resources and work is manifested in the self-management of the deliverers to carry out the planning. In turn, production control proved to be more environmentally sustainable, although the characteristics of labor precariousness were maintained, specifically, due to low-income values.



PALAVRAS-CHAVE

Cooperativa de Plataforma.
Entregadores por Bicicleta.
Precarização da Renda.

PALABRAS CLAVE

Cooperativa de Plataforma. Repartidores en Bicicleta. Precarización de Renta. Resumo: A sociedade está imersa numa crise de dimensões múltiplas. A dimensão econômica é destacada com os efeitos da digitalização. No Brasil, o setor de entregas é controlado pelos aplicativos que influenciam a geração de trabalhos precários. Entretanto, o surgimento de cooperativas de plataforma de entrega tem sido a alternativa de governança democrática do trabalho. Neste artigo, tem-se como objetivo analisar as condições de trabalho e renda na economia de entrega que podem conduzir à sustentabilidade, a partir da perspectiva dos entregadores ciclistas de uma cooperativa de entrega, em São Paulo-SP. Para tanto, adotou-se neste estudo a pesquisa qualitativa básica (Merriam, 2009), com a coleta de dados por meio da observação participante e a realização de entrevistas abertas, e o uso da análise de conteúdo temática (Bardin, 2011). Os resultados indicam que a propriedade coletiva dos recursos e do trabalho é manifestada na autogestão dos entregadores para realizarem o planejamento. Por sua vez, o controle da produção mostrouse mais sustentável ambientalmente, embora tenham sido mantidas as características da precarização do trabalho, especificamente, devido aos baixos valores de renda.

Resumen: La sociedad se encuentra inmersa en una crisis de múltiples dimensiones. La dimensión económica se destaca con los efectos de la digitalización. En Brasil, el sector de entregas está dominado por aplicaciones que generan trabajos precarios. Sin embargo, el surgimiento de las cooperativas de plataforma de Entrega ha sido la alternativa de gobernanza democrática del trabajo. Este estudio tiene como propósito analizar las condiciones de trabajo e ingresos en la economía de entregas que pueden conducir a un modelo más sostenible, desde la perspectiva de los repartidores en bicicleta de una cooperativa en São Paulo-SP. Para ello, se adoptó la metodología de investigación cualitativa básica (Merriam, 2009), recopilando datos mediante la observación participante y la realización de entrevistas abiertas; y el análisis de contenido temático (Bardin, 2011). Los resultados señalan que la propiedad colectiva de los recursos y el trabajo se manifiesta en la autogestión de los repartidores para llevar a cabo la planificación. A su vez, el control de la producción muestra una mayor sostenibilidad ambiental. No obstante, persisten características de precarización del trabajo, especialmente a causa de los bajos niveles de renta.



Introduction

Coping with a crisis by the world's population is still very clear, especially after the loss of life scenario resulting from the proliferation of the Covid-19 virus in 2020 and 2021 (United Nations Brazil, 2024).

According to the United Nations' World Economic Situation and Prospects 2024 report, global economic growth is expected to be lower in 2024; the estimate was 2.7% (two point seven percent) in 2023 and 2.4% (two point four percent) in 2024 (United Nations, 2024).

Digitalization in companies has enabled the emergence of apps (Associação Brasileira de Estudos do Trabalho, 2024a), programs produced by companies, public bodies and universities to meet users' needs (Dantas, Galhardo, & Diniz, 2023). This article emphasizes the applications created by technology companies to mediate business relationships using technology, which have become an "easy" and quickly accessible work option for many unemployed people. For example, in Brazil in 2022, there were 1.5 million people working through apps (Belandi, 2023).

App-based work highlights the emphasis of an economy centered on services as a result of the decline in industrial activity, i.e. the service industry (Machado, 2019). Attracted by the facilities of digital technology, workers are driven to make themselves available online through apps in order to cope with unemployment and obtain higher values under the idea of "financial autonomy" and becoming a "self-made entrepreneur" (Antunes, 2020).

However, another alternative form of work emerged in 2014 to challenge the exploitation of workers by platform companies (Scholz, 2016). The creation of platform cooperatives has been shown to be an alternative form of digital work organization by providing greater job stability and income through the opportunity for workers to plan, organize and control their work (Grohmann, 2022).

At the international level, studies approach platform cooperatives as digital economic ventures, which focus on the democratic management of workers to face the uncertainty of the value of income and the lack of social protection from the state (Charles, Ferreras, & Lamine, 2020).

In Brazil, studies emphasize the aspects of work in platform cooperatives based on the principles of decent work of the Fairwork Brazil project (Salvagni, Silva, Grohmann, & Cruz, 2021), as well as the concept of platform cooperativism and the perspectives of decent work defined by the International Labor Organization (ILO) (Gabriel, 2021).

In this context, research into the emergence of the delivery platform cooperative model in Brazil is important for understanding how these organizations mobilize work, people, production processes and logistics in order to reverse the economic logic of instability in the generation of low-wage jobs (Moura, 2024).

This paper is based on the following research problem: How are working conditions and income mobilized to create a sustainable delivery economy in the cooperative? The aim is to analyze the working and income conditions in the delivery economy that can lead to sustainability through the perceptions of delivery cyclists in a delivery cooperative.

In this sense, this study is justified insofar as it has the potential to contribute theoretically to the production of knowledge about platform cooperativism in Brazil, because understanding the organization and subjectivities of cooperative members becomes important, in turn, for understanding the human factor in the decision-making process about work and for advancing research in the area of Organizational Studies and related areas, such as People Management, Logistics, Economics, Environment and Society, in the context of the platformization of work.

In addition, the reflection contributes to the practice of organizing platform work by workers, which needs to be further developed with quality and sustainability in order to differentiate it from app-based work (Moura, 2024). Furthermore, it should be emphasized that the study was carried out considering the gaps in understanding the subjectivities of platform cooperative members, already pointed out in the literature on Platform Cooperativism (Gabriel, 2021, Grohmann, 2022, Zanatta, 2022).



Theoretical elements of the research

Platform cooperatives and collective ownership

Platform cooperatives are social organizations active in the digital economy as alternative ways of organizing work and resisting the hegemony of the digital platform model (Scholz, 2016). Since 2014, these social organizations have emerged on the global platform economy scene with the influences of the Platform Cooperativism movement, a term coined by Trebor Scholz, a professor at The New School (USA), in his seminal article Platform Cooperativism vs. the Sharing Economy (Scholz, 2014).

Platform cooperativism refers to a critical digital movement with origins dating back to academic discussions between professor Trebor Scholz and students at The New School, initially, and collectives and cooperatives, later, which sparked discussion events about creating alternative models of internet ownership (Scholz, 2014) that would enable better working conditions and income for workers, constant targets of the exploitation of working time with low wages paid by digital platforms.

Scholz (2016, p. 11) conceptualizes platform cooperatives as "collectively owned cooperative platforms, owned by the people who generate most of the value on these platforms, and which can reinvigorate this initial public mentality". The basic idea is to create a new form of digital social and economic organization that benefits more people, not just companies; in this way, platform cooperatives are opposed to platform companies.

As an example, the SMart Cooperative, based in Belgium and operating throughout Europe, was founded in 1998, initially as a non-profit organization, then, in 2017, it became a work cooperative with the main objective of bringing together artistic freelance workers to provide autonomy at work and access to social security benefits and rights provided by Belgian government laws (Charles et al., 2020).

In addition, app workers protested for an increase in the minimum amount per delivery (an

average of R\$ 5,00 per delivery at that time in Brazil), meal vouchers, life insurance, an end to app blockades and protective equipment (Oliveira, 2020).

Platform cooperatives were created as a result of strikes and stoppages by app workers around the world (Grohmann, 2022).

Among the problems generated by the organization of work on digital platforms, management by algorithm¹ is a management format that allows total control of work by technology and entrepreneurs (Van Dijck, 2021). In the case of app delivery workers, the demands for deliveries are notified by the app, and these workers need to be online for a long time (Antunes, 2020), making 15 to 30 deliveries a day, depending on their disposition and physical capacity, in order to earn an average salary at the end of the month above the current minimum wage of R\$ 1.412,00 (one thousand four hundred and twelve reais) (Dieese, c2024).

Collective organization to generate a decent income

The work of delivery cyclists in platform cooperatives is an alternative way of obtaining a stable income (Charles et al., 2020). The prospect of obtaining stability lies in the possibility of reducing the uncertainty of the monthly income amounts paid by the app, which also depend on factors such as the workers' hours, location and online availability (Cañada, Izcara, & Zapata Campos, 2023).

The idea of income stability is generated by delivery activities being influenced by the collective organization of work, so that each individual performance interferes with the collective performance over a certain period (week, month); moreover, this sharing of work performance contributes to the generation of a decent income for delivery workers in the cooperative (Scholz, 2016).

The essential elements of the concept of decent income are security and stability (Cañada et al., 2023). Security is associated with the



¹ Algorithmic management has further intensified control over the work carried out by workers, so that behavior is

monitored so that top performers are rewarded and lower performers are penalized.

opportunity to access work in the cooperative for people who are unemployed, marginalized groups (immigrants, LGBTQIA+ people, women) or even people in the informal economy who are unable to enter the formal labor market in companies. And stability refers to the absence of variation in the amounts earned from work during the month, due to the dynamics of greater protection given to delivery workers by the collective organization (Scholz, 2016).

The collective organization of work prevents responsibilities from being individualized, so there is a sharing of the financial benefit among everyone without distinctions in receiving value for individual performances and creating a tendency towards a fixed monthly income (Battilana, Yen, Ferreras, & Ramarajan, 2022). The calculation of income in the cooperative leads to the generation of a stable income for the delivery person, in order to cover necessary expenses for basic human survival needs and social needs such as leisure, housing and education.

The idea of a stable income has the potential to solve many problems arising from the poor remuneration practiced by apps (Battilana et al., 2022). A more stable income would be a way of breaking with the logic of instability in each delivery driver's earnings, a logic reinforced by the flexibility of the app-based way of working, which creates the neoliberal rationality of the self-entrepreneur² in order to spread the idea of working without a boss, with the flexibility to earn higher levels of income than the minimum wage.

An alternative and sustainable delivery economy

The business model of platform cooperatives seeks to develop another concept of work (Scholz, 2014). The focus on extracting value from the work practiced by digital platforms, visualized in the dynamic of encouraging the "self-starter" to maximize company profits, is not maintained in Platform Cooperatives.

² The self-made entrepreneur is a discourse created by digital platforms in order to stimulate a neoliberal human rationality of capitalist accumulation, but the realization of In the delivery business, app-based delivery workers are one of the workers experiencing the effects of the flexibilization of work (Oliveira, Reis, 2023). The discourse of the self-made entrepreneur is used to strengthen the neoliberal practices of flexible work by platform companies around the world, but there is no effective inclusion of these workers in the consumption processes of the business class, so many remain in poverty.

This discussion presents the idea of economist Esther Duflo, winner of the Nobel Prize in Economics in 2019, about the inconsistency of the relationship defended by theorists between the poor and entrepreneurship (Banerjee, Duflo, 2021). Duflo conducted extensive field research in India on the behavior of the poor in that country and how they chose the economic actions necessary to survive; based on the results identified, the economist states that the idea that credit incentives, through microcredit programs created by governments for the poor, can make them entrepreneurs is misleading (Koveos, 2019; Leo, 2022).

It is a mistake to consider that the economic activity carried out by low-income people is the crucial dimension in the analysis of the reduction of inequalities between the poor and the rich; thus, Duflo highlights the need to create public economic development policies that generate a better distribution of income by taxing the wealth of rich people and the largest multinational companies (Banerjee, Duflo, 2021).

The creation of Platform Cooperatives around the world is intended to generate resistance to the exploitation of labor on platforms through forms of collective work that generate more sustainable working conditions and autonomy for workers (Scholz, 2016).

Brunoro (2013) argues that the term sustainability arose with the work of Carlowitz in 1713, with a focus on the environmental movement. Carlowitz's work deals with the change in forms of production and consumption due to the limitation of natural resources available

this new human condition is not accessible to everyone and generates more social inequalities.



for use by man in the face of the growth of the economy in a given region.

Savitz and Weber (2007, p. 123), for their part, developed the concept of sustainability, associating it with the idea of interdependence between factors:

Sustainability is the interdependence of living beings on each other and on the environment, as well as the acceptance of the interdependence of different aspects of human existence. Economic growth and financial success are important and generate significant benefits for people and society as a whole. But other human values are also fundamental, including family life, intellectual growth, artistic expression and moral and spiritual development.

Studies on the concept of Sustainability have been deepened since the discussion of Sustainable Development. The Stockholm Conference (United Nations Conference on the Human Environment) in 1972, according to Brunoro (2013), brought this discussion to the fore due to the fact that the situation of environmental degradation had gained global proportions, which contributed to the involvement of a greater number of nations in finding global solutions to the problem.

And in 1987, the concept of Sustainable Development emerged from the Brundtland Commission's report entitled "Our Common Future" on Environment and Development of the United Nations (UN), presenting the idea of a type of development that prioritizes meeting current needs without compromising the ability of future generations to have their needs met as well (United Nations Brazil, 2020).

In 2015, the UN drew up the 17 (seventeen) Sustainable Development Goals (SDGs) as a global plan for the 193 (one hundred and ninety-three) countries that make up the Organization to take action for a sustainable planet by 2030 (United Nations Brazil, 2024).

In the context of bicycle food delivery cooperatives, the impacts caused by the delivery activity on society and the environment are softened or even lessened compared to the impacts caused by food deliveries by app couriers who use motorcycles as their transportation vehicle (Cañada et al., 2023).

Bicycle delivery is the most suitable and recommended form of delivery for preserving the environment (Fochesato, 2022), as it encourages a reduction in the emission of polluting gases into the air, whether in cities or rural areas, reducing the proliferation of CO₂, gas, which causes the greenhouse effect in the atmosphere, causing temperatures to rise frequently.

Thus, the construction of production and socialization alternatives by workers to reverse the reality of using the workforce to achieve profit concentrated on platforms is gaining prominence scenario of growing structural unemployment, such as the cooperative movement Brazil. Studies on alternative organizational forms represent the framework for reflection in this article, with emphasis on the ideas of Scholz (2014; 2016), who presents the creation of platform of the emergence cooperatives, conceptualized as social and economic organizations owned by workers or users on the internet, which can develop resistance to precarious work on digital platforms.

The characteristics of delivery work by cyclists in platform cooperatives that present the most favorable conditions for generating income stability are also pointed out, considering the influence of monthly collective performance on monthly individual performance, which reduces variations in income levels, according to Charles et al. (2020), the security of access to work for unemployed people, marginalized groups or people who work informally, as considered by Cañada et al. (2023) and the sustainability of working conditions, based on the concept of sustainability proposed by Savitz and Weber (2007) and the Sustainable Development Goals in Brazil defined by the UN (United Nations Brazil, 2024), in particular, No.º 8 - Decent work and economic growth; and No. 11 - Sustainable cities and communities.

Methodological elements of the research

Based on the general objective of analyzing the working conditions and income in the delivery



economy that can lead to sustainability, taking into account the opinion of delivery cyclists from a delivery cooperative, the study can be characterized as basic qualitative research (Merriam, 2009).

This research has exploratory and descriptive dimensions, as explained by Gil (2017), because it seeks to get closer to the research question: How are working conditions and income mobilized to generate a sustainable economy in the cooperative? It should be noted that the descriptive dimension of the research is related to describing the characteristics of the research participants in order to better understand the *locus* of investigation.

Data was collected after the research project with the interview script was authorized by the Ethics Committee of the Federal University of Pernambuco (UFPE), CAAE No. 76658823.5.0000.5208.

The research took a qualitative approach based on the concept of Creswell (2014), through which we seek a real understanding of the research problem investigated in the natural context of the occurrence of the challenge situations for the research participants. It was approached from an ethnographic perspective, as the researcher began to participate as a "native" member of the delivery activities, on a daily basis, together with the delivery cyclists, thus fostering knowledge of the beliefs, customs, behaviors and work culture practiced in the cooperative.

The data collection techniques used were: a) participant observation, through the researcher acting as a volunteer worker, developing the daily routine of delivery activities at the cooperative's headquarters for a period of one (1) month, from February 26 to March 26, 2024, with the possibility of observing the delivery production process and working conditions; b) open interviews, carried out with 11 (eleven) cooperative members, after reading and signing the Informed Consent Form (ICF).

The *locus* of the research was a frozen food delivery cooperative located in the Pinheiros neighborhood, on the west side of the city of São Paulo. The choice of cooperative followed criteria pertinent to the objective of the study, such as: a) it represents a platform governance alternative that

generates more stable work and income for bicycle couriers; and b) a revealing example of a platform cooperative that generates a delivery economy for sustainability, in the sense of a transition to another delivery economy.

The data was analyzed using the technique of thematic content analysis, conceptualized in 1977, in the book *Analyse de Contenu*, by Bardin (2011), as a method for analyzing communication, with the aim of obtaining quantitative or non-quantitative patterns that generate inferences of knowledge in communication. Thematic analysis made it possible to critically interpret the content of the messages transcribed from the interviews with the research participants.

It should be noted that this study used the Atlas.ti version 23 software to help with the activities of Bardin's (2011) Content Analysis technique. The software made it possible to code the data collected in the interviews with the research subjects, so that inferences were made by the authors in the analysis.

The first stage is called pre-analysis. In this stage, the activities involve organizing and reading all the documents to be subjected to analysis, as explained by Bardin (2011). In the case of this study, the transcripts of the interviews were the documents chosen, and the set of documents form the corpus of the research. At this stage, the following rules were also observed: completeness (reading to exhaust the understanding of the totality of the communication); representativeness (the sample must represent the universe); homogeneity (the data refers to the same theme); pertinence (the documents are adapted to the content and objective of the research); and exclusivity (an element must be classified in only one category).

The second stage consisted of exploring the material. This stage involved coding (the choice of recording unit, which was the cutting out of excerpts or paragraphs from the interview transcripts; the classification and aggregation of recording units because they had common characteristics); classification (organization based on grouping by theme); and categorization (gathering information based on the themes schematized in such a way as to express the category).



Thus, after choosing the coding units (paragraphs or excerpts from the interview transcripts), the units were classified into blocks (themes) that expressed the category, based on Bardin (2011). In this way, the analysis was carried out in a continuous movement from the theory to the data and vice versa.

Once the category had been drawn up, it was also necessary to define it. This was done on the basis of the verbalizations relating to the themes, paying full attention to the entirety of the interviewees' statements, as prescribed by Bardin (2011). It should be noted that the category was drawn up a *posteriori*, i.e. after the data had been collected. Figure 1 shows an example of how this coding stage was carried out.

The third stage of the method was the treatment of the results, involving inference and interpretation. Inference was based on an inductive analysis of extracts from the selected transcripts, based on the interview script and the research question.

And the interpretation was based on an analysis of the themes and selected excerpts, in order to identify concepts created from the participants' language, in a movement of comparison to come up with a concept that grouped the themes together.

Presentation and discussion of results

The cooperative was created at the end of 2016 and formalized in 2017. It has 12 (twelve) workers who work as delivery cyclists or bike couriers. It should be noted that of the 12 (twelve) cooperative members, only 1 (one) chose not to take part in the survey. Table 1 below shows the socio-economic characteristics of the participants.

The cooperative provides food delivery services by bicycle to restaurants through contracts with clients in the city of São Paulo-SP.

The cooperative's bicycle delivery activity has two (2) characterizing factors. The first concerns the self-management of bicycle couriers to plan, organize and control their work and income in an alternative way to digital platforms. The couriers collectively decide to create quality criteria, such as: dialogue with customers to define aspects of the service, customer feedback, objective communication between couriers about failures or confirmation of the service and the use of technology for more agile communication with customers and couriers.

Figure 1 **Example of categorization and coding**

Category: Economy of delivery with justice and tainabil

Topic 1:

Fair income

• **Definition:** The cooperative here makes me feel more at ease, it's not something that suffocates me, I feel at ease, I can get my income, at ease, sometimes at the weekend. We pay a portion to the cooperative, but it's a much less abusive portion than we would pay, in quotes, if it was deducted, regardless of whether we knew about it or not. So being in the cooperative nowadays, incomes are very equal, very equal, everyone was once different, we used to earn almost double what we earn today. We're looking to value the category, right, and to use the bicycle as a tool to relieve congestion in the city, a way of bringing well-being to the city. What cars do, we don't do with bike deliveries. We have a totally different vision from those who deliver by car or motorcycle. We also have the reality of Brazilian society as a whole, which is an unequal reality with many poor people, and the bicycle is a more democratic means of transportation because it's cheaper, the cost of maintenance is lower, the cost of buying a bicycle is lower.

• Examples of verbalizations

- E4: I'm calm, I can get my income, calm, sometimes when it's the weekend
- E6: I think it's also respect for our work, not having a discounted amount, we pay a portion to the cooperative, but it's a much less abusive portion than we would pay, in quotes, if it was discounted, regardless of whether we knew it or not.
- E10: So you're in the cooperative nowadays, the incomes are pretty even, pretty equal.

• Examples of verbalizations

- E1: We seek to value the category, right, and the use of the bicycle as a tool to decongest the city, a way of bringing well-being to the city, we really believe in the bicycle as a social transformation beyond deliveries.
- E3: It's what cars do that we don't do with bike deliveries.
- E9: The bicycle is a more democratic means of transportation because it's cheaper, the cost of maintenance is lower, the cost of buying a bicycle is lower.

Topic 2: Sustainability

Source: Prepared by the authors, 2024.



Table 1 Socio-economic information of research participants

Name	Year of entry	Age/Nature	Gender	Education	Home condition	What is your average income?	Delivery via conventional platforms (apps)
E1	2017	30 years old/São Paulo	Male	Completed high school	Rent	R\$ 1.200 to R\$ 1.800	Yes
E2	2021	29 years old/São Paulo	Male	Completed high school	Rent	R\$ 1.200 to R\$ 1.800	Yes
E3	2020	32 years old/Bahia	Male	Completed high school	Rent	R\$ 1.200 to R\$ 1.800	Yes
E4	2018	38 years old/São Paulo	Male	Completed high school	Rent	R\$ 1.200 to R\$ 1.800	Yes
E5	2019	30 years old/São Paulo	Male	Completed high school	Rent	R\$ 1.200 to R\$ 1.800	No
E6	2023	29 years old/São Paulo	Female	Higher Education	Rent	R\$ 2.000	Yes
E7	2017	30 years old/São Paulo	Male	Completed high school	Rent	R\$ 1.200 to R\$ 1.800	No
E8	2023	32 years old/São Paulo	Male	Completed high school	Rent	R\$ 1.200 to R\$ 1.800	Yes
Е9	2023	29 years old/São Paulo	Male	Incomplete higher education	Rent	R\$ 1.200 to R\$ 1.800	Yes
E10	2021	30 years old/São Paulo	Male	Completed high school	Rent	R\$ 1.200 to R\$ 1.800	Yes
E11	2021	30 years old/São Paulo	Male	Completed high school	Rent	R\$ 1.200 to R\$ 1.800	No

Source: Prepared by the authors based on interviews, 2024.

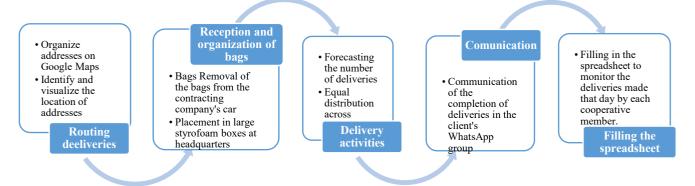
The second feature is sustainability in the production of the delivery service. The production flow (delivery activity) is characterized by the participation of each delivery person in choosing the appropriate route to deliver to the customer, in choosing a work tool (bicycle) that reduces environmental impacts, and also in choosing to transport frozen food by bicycle, which is more sustainable for consumption.

The flow has 5 (five) stages organized into the morning and afternoon shifts of the day, involving the main activities: I - the routing of deliveries; II - receiving, picking up and organizing the bags for deliveries to the exact locations informed by the customer; III - carrying out the delivery activities

by bicycle; IV - communication by the cooperative members on the platform to the customer; and V - recording the data and filling in the spreadsheet, prepared in Excel software, to monitor the quantities of deliveries made. Figure 2 shows the operation flow of the delivery activity.

The deliverers decide which customer requests they will fulfill, how the income will be calculated, how the income will be distributed among the cooperative members, what the delivery routes will be and how the customers will have access to consumption (either pick-ups at the cooperative or deliveries to customers' homes); thus, the deliverer plays a central role in deciding the flow of production.

Figure 2
Operational flow of the delivery activity in the cooperative



Source: Prepared by the authors, 2024.

The cooperative members choose their routes taking into account the order in which they arrive at the cooperative's headquarters in the morning, a condition agreed upon by the cooperative members at the monthly meeting; thus, there is no provision for a delivery person to be unavailable to attend to customers in certain locations, but rather the collective consent to carry out the delivery route according to the order of the time they arrive at the headquarters.

The reality of the struggle against exploitative relations in bicycle delivery work motivates delivery workers to seek collective ownership of the platform (Scholz, 2016). When asked about the reason for founding and being a member of the bicycle delivery cooperative in São Paulo-SP, the opinions reveal that the cooperative members have the perception that collective ownership enables the collective possession of goods, resources and the work itself, creating fairer working relationships for the workers, relationships without hierarchy, as can be seen from the following statements:

... we met a solidarity economy activist called M, and then he heard our story, saw that we wanted to organize ourselves to create something that was ours, that we really felt part of, that we felt we owned, and then he introduced us to the cooperative business model (Interviewee 1).

... everyone does the same thing, because in registered work you're beholden to a boss, a, I think a coordinator, something like that and

not here, here everyone does the same thing, here we don't have a boss ... (Interviewee 3).

Others emphasized that collective ownership is a kind of shared practice of uses and responsibilities, which stems from the solidarity of the cooperative members in assuming the economic and social risks of the activity. In addition, collective ownership makes it possible to use or share goods and spaces with all the cooperative members, as can be seen in the following excerpt.

I think another thing is the sharing of things, collectivity like this, what is, what belongs to the *cooperative is a public good, a common good, in* other words, and everyone has the right to use it or the responsibility to use it, to share things like this, share the bike, share the helmet, share the snack, share the food, so this is also one of the values that are part of the day-to-day life of the cooperative, right? (Interviewee 6).

The expression "cooperative is a public good, a common good" highlights the concept of common goods or the commons as seen in Chatterton and Pusey (2020), who approach the commons and its concept as a form of collective property and social reproduction that creates alternative forms of property to the capitalist private property model, through the self-management of goods and social spaces.

There were also those who chose to emphasize the value of social equality as an essential aspect



to justify the choice to found a bicycle delivery cooperative, as can be seen in the following excerpt.

I've only just arrived and there's already a structure in place, I haven't participated much in this structuring, but it's something we deal with very well, and it's natural, we all have the same value in the cooperative ... (Interviewee 8).

The idea of equal value for each member of the cooperative also reinforces the general objective of creating a cooperative as a common good, using alternative forms of value creation organized by a collective. Chatterton and Pusey (2020) explain that collective ownership creates an awareness of equal responsibilities, rights and obligations, reinforcing in a way the sharing of the economic and social benefits generated for all cooperative members.

The perception of generating a better monthly income as a delivery cyclist in the cooperative for some is based on the differentiation of the delivery activity carried out, which is characterized by the solidarity economy, the fair distribution of income and the appreciation of the delivery cyclist, as can be seen in this statement:

We already have an amount agreed with each client, we work out the cost of our delivery, of our service and we reach an agreement with the client and then that amount is passed on, most of it is passed on to the cyclist and 25% is collected for the cooperative, to pay the rent, pay for the internet, the water bill, the electricity bill, the tax on services, the accountant and other inputs for the base, in other words, this money that is collected, it is to maintain the cooperative itself and is not for profit, and then the transfer is made once a month as we receive payments from customers, this amount is transferred to the cooperative's account and then as soon as the cooperative receives this amount, we have a day to transfer it to the cooperative members, a day in the month already defined among all the cooperative members which is the 15th... (Interviewee 1).

In the expression "most of it is passed on to the rider and 25% is collected for the cooperative", it can be seen that the purpose of choosing the legal form of the cooperative is to tackle the impact of the informalization of the employment relationship of delivery by app, which weakens the income of this category of workers and influences them to obtain low amounts of income.

The choice to pass on the largest share of earnings to the delivery cyclist is a sign of the worker's appreciation and the opportunity to generate stability in the platform cooperative model (Charles et al., 2020). Stable income in the cooperative is generated by the sum of individual efforts throughout the month, which allows for more security in obtaining the amounts and the subsequent distribution of equal value among the cooperative members.

Other cooperative members emphasized the fact that, as this is a delivery job carried out through the platform cooperative model, there is the practice of justice and respect, giving the notion of a decent income and valuing the work; therefore, there should be no discounts that further reduce the remuneration. The following excerpt gives an example of what social justice means:

... I think it's also a respect for our work, not having a discounted amount, we pay a portion to the cooperative, but it's a much less abusive portion than we would pay, in quotes, if it was discounted regardless of whether we knew it or not, the transfer of our work is fairer than in a regular company, and that's some of the things I remember (Interviewee 6).

Interviewee 6's statement shows the factors in the concept of decent income pointed out by Cañada et al. (2023): security and stability. The calculation of income takes into account a percentage that is levied on the amount earned, the purpose of which is to make up the fund generated to pay for the cooperative's maintenance costs (electricity, water, rent, internet). It can be seen that this way of calculating income generates more security and stability, because it is not influenced by the application of fees and amounts unknown to the deliverers, compromising the earnings generated during the month.

In addition, there were those who preferred to point out that the income generated in the cooperative is higher than the income generated in the capitalist dynamics in the applications,



precisely because of the way the values are distributed, i.e. because it is fairer, as can also be seen from the following reports:

... I think that even in this sense of the delivery cycle service market, we provide a good service, what's different is that the distribution is done fairly, so it's still a bit higher, except that outside the capitalist delivery cycle activities, the transfer is much lower, so it's that question of added value, but the transfer is very low (Interviewee 11).

It can be seen that there is a division between the cooperative members' responses: when asked if there are more opportunities to generate income by delivering to the cooperative, in order to get out of the precarious income situation, some cooperative members said that they believed that they could generate income more easily, without the feeling that they were delivering to the cooperative to supplement their income or as a side job, but rather as the main source of income to cover consumption costs, as shown in this report:

... because there are people who want to take a step bigger than their leg, the guy wants to do five things at the same time, he's in several places, the cooperative here makes me more relaxed, it's not something that kind of suffocates, I'm relaxed, I can get my income, relaxed, sometimes when I do my shopping at the weekend (Interviewee 4).

However, other cooperative members emphasized that the cooperative's delivery activity is not their main source of income; there are other sources of income to supplement their earnings at the end of the month, due to the current situation of a low number of clients and at other times based on the low level of probing to find potential clients for the business, as can be seen in the following fragment.

And it's been better, the cooperative itself has been better at prospecting customers and more deliveries, my income has been higher here, today I can support myself, because I have other sources of income ... So being in the cooperative nowadays, incomes are pretty even, pretty equal, everyone used to be different, we used to earn almost double what we earn today, we're chasing it because most

of us want to earn more and we need to, there are people who just want the cooperative as a source of income (Interviewee 10).

... in that same company that I mentioned before, we used to get a fee, every time it rained we got an extra fee just because we were cycling in the rain, it was a way of valuing our work, unfortunately that company no longer pays us that fee, and another thing that the company no longer pays is a fixed fee per route, in the past we had to go to the company and pick up, and just for going to the company and picking up the products, we already earned a fixed fee regardless of the number of deliveries per day. More recently, we've tried to change the scale of these values in order to value our work, so that we can earn more and work less, unfortunately we received a counter-proposal well below what we expected, which made our work very precarious (Interviewee 9).

The "advantage" of low pay lies in the possibility of equalizing income, i.e. the amount of income earned at the end of the month is the same for everyone. This highlights the argument put forward by Battilana et al. (2022) about fixed incomes as a predictable amount of income for workers, even in precarious work situations.

Although there are reports of advantages of the platform cooperative model, there is still a prevalence of precarious income in the cooperative, considering the low amount received by the cooperative members. This situation draws attention to the idea of the permanence of precarious work in the delivery activity because it doesn't provide enough income to cover basic expenses for these delivery workers, despite the stability of income and the opportunity to work with reduced working hours. In other words, the situation of few customers has influenced the condition of low pay.

The cooperative's bicycle delivery activity shows that another economy is possible, a delivery economy committed to the relationship between work, self-management and economic regulation. Some cooperative members said that the delivery service has a distinctive quality because there is a sense of belonging to the work on the part of the delivery workers. This can be seen in the following excerpt.



... so the service is going to be provided with excellence, with quality, it's suddenly different from a person who is delivering by app, sometimes, they're going to be on a bad day and they're not going to be that careful with the delivery. Because, like, "ah!", then they'll manage with the app (Interviewee 1).

Working conditions also have more potential for reducing precariousness, through a safe physical infrastructure for resting between shifts, worker health with a work environment that reduces fatigue and pain, as well as a reduced working day, as can be seen in the following excerpts from some cooperative members' speeches.

... in the cooperative a delivery schedule is already organized so that the person doesn't have to work long hours to earn a minimum income, I believe that this is one of the advantages of the cooperative (Interviewee 1).

We don't understand that we work in a precarious way, we even have a certain comfort here, like, in this case, we have our clients, our deliveries, we can make our deliveries, we can go back to base, we have access to the bathroom, we can even take a shower, we have access to filtered water, filtered water, we have a place to rest here, so we're kind of going against the general precariousness that happens in apps (Interviewee 8).

On the other hand, other cooperative members revealed that the work isn't as easy as with the app, and that self-management will be developed by getting everyone involved in deciding how deliveries are made, prices and the use of technology, as seen in this excerpt:

... because it's much easier to go on the app to make deliveries and earn money than in a cooperative, in a cooperative you need to join, you need to become a member, you need to know that you're a member, you need to know that you have to take care of other functions, unite with common sense with the members ... (Interviewee 5).

The possibility of social change with the cooperative's delivery activity lies in its contribution to reducing the social, economic and

environmental inequalities generated by mass production and consumption processes in applications (Antunes, 2020). The cooperative members consider the practices that can reduce environmental inequalities as contributions. Firstly, the use of the bicycle as an instrument that favors access to work for people who are unemployed, and secondly, the activity of delivery by bicycle, which is done through the use of a vehicle that is not only more suitable for shortdistance deliveries, but is also a non-motorized transport vehicle that pollutes less and can replace the car in traffic, altering the effects of the global climate crisis. In this regard, it is worth highlighting these reports:

We seek to value the category, right, and the use of the bicycle as a tool to decongest the city, a way of bringing well-being to the city, we believe very much in the bicycle as a social transformation beyond deliveries, ... (Interviewee 1).

I see us, the delivery cycles, more as an impact on the environment. Understand? What cars do, we don't do with bike deliveries. We have a totally different view from those who deliver by car or motorcycle. With bikes, we don't pollute the environment, and we can make our deliveries in peace (Interviewee 3).

At the same time, some of the cooperative members said that cycling could be the most accessible way for more people to join sustainable mobility in cities, a current challenge for the energy transition in the transport sector, despite the predominance of motorized public transport (buses, minibuses, subways, trains) in Brazilian cities, such as São Paulo-SP, which implies a high cost of maintaining the transport system for the public authorities (Ricardo & Mariutti, 2021). Mariutti, 2021) and also a high level of fossil fuel consumption, which leads to air pollution and human health problems. The following report is an example of the advantages of using bicycles.

We also have the reality of Brazilian society as a whole, which is an unequal reality with many poor people, and the bicycle is a more democratic means of transportation because it's cheaper, the cost of maintenance is lower, the cost of buying a bicycle is lower, ... (Interviewee 9).



The bicycle then becomes, in addition to a work tool, a non-motorized vehicle that can be used as a cheaper means of transport for the population on the outskirts of cities, especially in order to guarantee the right to transport for so many people who cannot afford to pay for public transport.

Final considerations

In this article, the testimonies on which this study is based show the dimension of work autonomy that arises from the process of selfmanagement in platform cooperatives, according to the ideas of Scholz (2016). The cooperative members can collectively decide how the delivery activity will be carried out, at which point the selfmanagement experienced provides signification of ownership as discussed by Oliveira and Reis (2023), so that each delivery worker exercises critical participation in the actions of planning and controlling the work; this is a property acquired by the active participation of the worker in the organization of work.

The cooperative's income is variable because it is influenced by the number of contracts signed with clients. At the time of data collection, the cooperative had a low number of clients, which influenced the low value of income, even with the stability provided by collective ownership.

It should be emphasized that the delivery workers in the cooperative show a naive, unclear and contradictory perception of generating a decent monthly income. The choice to give the lion's share of the earnings to the cyclist himself and the absence of discounts on the value of the work are arguments put forward by the cooperative members to reinforce the practice of a decent income, but the cooperative members' income is still precarious due to the low value obtained from deliveries, which has been a reason for the deliverers to have other informal employment relationships.

In addition to the income, the working conditions in the cooperative are more specific in terms of the physical safety of the delivery driver, as well as maintaining the worker's health, such as the definition of a fixed location for the

cooperative's headquarters, the reduced working hours and the breaks between shifts.

It is important to note that the cooperative's bicycle delivery activity contributes to reducing the negative impacts of digitalization, in other words, it reduces the social, economic and environmental inequalities created by app-based work. Bicycle couriers in the cooperative point to the social phenomenon of platform cooperatives as a way of generating work for unemployed people and the use of bicycles as a vehicle to decarbonize the city.

With regard to the creation of a cooperative economic model with a sustainable platform, there is still no consistent alignment between the production process, work and income that would make it possible for delivery cyclists to get out of the precarious working conditions; there are low wages earned on the job and few conditions to generate an economy of scale in the deliveries made due to the cooperative's fragile personnel structure and physical and technological infrastructure, limiting the expansion of services to other São Paulo neighborhoods.

Thus, there are many challenges for cooperatives to remain as alternatives to digital platforms. Therefore, research efforts in the field of administration on the emergence of these organizations seem very relevant, particularly in the Brazilian scenario, in order to understand how collectively created production and consumption processes are organized and can influence changes in the distribution of wealth and the generation of work and income. Thus, the announcement of alternatives can be a fruitful way of revealing other possible and sustainable organizational practices.

For future work, it is suggested that research be carried out using a comparative approach, analyzing the situations of workers who work on traditional platforms and workers who work in cooperatives, considering the elements brought up in this study, such as: income level; respect for the customer; working conditions; working hours; participation in work; production flow; belonging, among other aspects, such as stress levels and the workers' perception of their future in this work context.



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