

UNIVERSIDADE DO VALE DO RIO DOS SINOS (UNISINOS)  
PROGRAMA DE PÓS-GRADUAÇÃO EM ADMINISTRAÇÃO  
NÍVEL DOUTORADO

ROVIAN DILL ZUQUETTO

**A JUSTICE-BASED GOVERNANCE APPROACH FOR  
PLATFORM-BASED ECOSYSTEMS**

Porto Alegre

2023

ROVIAN DILL ZUQUETTO

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PLATFORM-BASED ECOSYSTEMS**

Tese apresentada como requisito parcial  
para obtenção do título de Doutor em  
Administração, pelo Programa de Pós-  
Graduação em Administração da Universidade  
do Vale do Rio dos Sinos (UNISINOS).

Linha de pesquisa: Competitividade e  
Relações Interorganizacionais – Tema 2)  
Inovação e Empreendedorismo.

Supervisor: Prof<sup>a</sup>. Dra. Bibiana Volkmer Martins

Porto Alegre

2023

Z95j

Zuquette, Rovian Dill.

A justice-based governance approach for platform-based ecosystems / Rovian Dill Zuquette. – 2023.

209 f. : il. ; 30 cm.

Tese (doutorado) – Universidade do Vale do Rio dos Sinos, Programa de Pós-Graduação em Administração, 2023.

“Supervisor: Prof<sup>a</sup>. Dra. Bibiana Volkmer Martins”.

1. Governança. 2. Justiça. 3. Ecossistemas. 4. Capacidade.  
5. Plataforma. 6. Contratualismo. 7. Princípios. I. Título.

CDU 658

Dados Internacionais de Catalogação na Publicação (CIP)

(Bibliotecária: Amanda Schuster – CRB 10/2517)

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Tese apresentada à Universidade do Vale do Rio dos Sinos – Unisinos, como requisito parcial para obtenção do título de Doutor em Administração.

Aprovado em 13 de setembro de 2023

**BANCA EXAMINADORA**

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Bibiana Volkmer Martins – Universidade do Vale do Rio dos Sinos

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Jorge Renato de Souza Verschoore Filho – Universidade do Vale do Rio dos Sinos

---

Douglas Wegner – Fundação Dom Cabral

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Kadigia Faccin – Fundação Dom Cabral

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Rafael do Nascimento Grohmann – University of Toronto

## AGRADECIMENTOS AO CNPq E À CAPES

Partial financial support was received from the National Council for Scientific and Technological Development – CNPq.

This study was financed in part by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior – Brasil (CAPES) – Finance Code 001.

It is fair to say that without the support of my wife, Leandra, and my son, Arthur, I would never be capable of producing this thesis. For you two, thank you very much.

## ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to my advisor, Bibiana Volkmer Martins, a fantastic person whom I can call a friend. Thank you for pushing me in my patience times and patiently dealing with my stresses. Without your support, the PhD path would have been more arduous.

During my journey through the Ph.D., I developed a friendship with a special person, and together we could enjoy the stones along the way; my sincere gratitude to Dra<sup>1</sup>. Graziela Molling.

I also thank you for the friendship and the moments of joy and debate that I was able to have with Andrieli Diniz Vizzoto, Samuel Ferreira de Mello, and Aruana Rosa Souza Luz. Last but not least, the Unisinos Business School student and colleague that I would like to thank is Bruno Freischlag; I appreciate your help until now and for the future work to come.

I thank you all the faculty and staff of Unisinos, especially the Unisinos Business School, for all the support. Thank you to Dr. Carlos Eduardo Santos Pinho from the Social Sciences School for helping me, during the Theories of Social Sciences course, to develop a critical sense of society, democracy, and several other topics that encouraged me to be more critical about my academic work.

One of my first courses in the Ph.D. was with Professor Dr. Iuri Gavronski, whom I had met during my master's degree, but I found a different person that I take the freedom to call a friend. You encouraged me not to accept pre-concepts that exist in academia and, with the most direct words, encouraged me to keep hitting invisible walls that seemed insurmountable to me. Thank you very much, Professor.

I would not be able to fall in love with the country of Colombia without the help of Dra. Aurora Carneiro Zen, who managed all the bureaucracy for my period abroad, for that I am grateful to you. I also thank you, Camila Coletto, my Brazilian colleague during the period in Colombia. Sometimes, it was more challenging, but together, I have no doubt we got stronger, smarter, and friends.

*Mi sincero agradecimiento*, my sincere thanks to Jose Enrique Arias Pérez and all faculty and staff from Universidad de Antioquia, who welcomed me warmly and were always concerned about my well-being in Colombia. Thank you to all the friends that I made and all

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<sup>1</sup> At the moment I finished this document she does not have the PhD title “yet”, but I have no doubt she will and took the liberty to nominate her Dra.

Medellin citizens who showed me that, despite the difficulties that LATAM faces, we have a lot to learn and build together. Colombia, especially Medellin, has become a place that holds a special place in my heart.

My sincere gratitude to Marc Steen, a researcher whom I had the privilege to meet during the Junior Researchers Interact previously to the XXXIII ISPIM Innovation Conference, and who brought to my knowledge the work of Amartya Sen, that, in part, set this thesis bases.

The pride in the eyes of my parents and brothers during the decision to start a Ph.D. was of great value to me, thank very much to my mom, Solange Dill Zuquette, and my father, Persival Paulo Zuquette, for always incentivizing me to study, and try to change the world. Thanks to my brothers, Marton Dill Zuquette and Tonian Dill Zuquette, being with you and your families is always a moment of stress relief.

All my thanks to Rogério Aquino Nogueira, AppJusto CEO; without your help, I would have never reached the results of this thesis. You are a especial human being with a great purpose; I know the path is not easy, but I hope that in some way, the results of this document can provide some insights to leverage AppJusto as a fair alternative in the food delivery market.

I want to express my sincere gratitude to the doctors who helped to improve this thesis and provided positive feedback that made me move forward with energy, negative feedback that made me build strong arguments, and constructive feedback so I could improve this research and me professionally and personally. A special thanks to Dr. Jorge Renato de Souza Verschoore Filho, Dr. Douglas Wegner, Dra. Kadígia Faccin, Dr. Rafael do Nascimento Grohmann, Dr. João Maurício Gama Boaventura, and Dr. Alsones Balestrin.

My sincere gratitude to a list of friends who in some way impacted my journey through this thesis and during the Ph.D., thank you Mauro Costa, Fabrício Liberali Campana, Alfredo Freitas, Geraldo Aguiar, Luis Fernando Goulart, and all HED staff, Dr. Guto Niche, Carina Pasqualotto, Daniel Duwe, Sandra Marlene Battisti Heck, Mateus Santini, Esteban López Zapata, Carlos Alberto Frantz dos Santos, Santiago Uribe, Sandro Cortezia, and all Ventiur staff. For all the other friends not cited here, please feel embraced.

A special thanks to all couriers and restaurateurs who provided a valuable piece of their time to ensure the data for this thesis. Without your help, the results presented here and the future potential discussions it rises would never be possible. I hope that this thesis can serve to make the world a place fairer, but we need to do it together.

August 30<sup>th</sup>, 2023



When you or I buy something, we don't pay with money;  
we pay with our lifetime that we had to spend to get this money.  
But with a difference, the only thing you can't buy is a lifetime  
(MUJICA, 2016).

## RESUMO

Ecossistemas-baseados em plataformas (EPBs) são um conjunto de atores interdependentes que interagem para criar valor. Para atrair, reter e fomentar a interação entre estes atores, os EBP's usam elementos de governança. A governança tem o propósito de fomentar a criação de valor pelos participantes. Uma governança justa atrairá e manterá participantes, caso contrário, os participantes vão embora, o valor não é criado nem compartilhado. No entanto, não conseguimos encontrar nenhum modelo de governança baseado em justiça para EBP's. A pergunta que surge é: **Por que precisamos de um modelo de governança baseado em justiça (GBJ) para ecossistemas baseados em plataformas (EBP's) e como ele deveria ser?** Utilizamos uma abordagem qualitativa através de estudo de casos múltiplos, selecionamos três plataformas de delivery, a Rappi, maior plataforma da Colômbia, o iFood, maior plataforma do Brasil, e o AppJusto, uma plataforma que vem ganhando destaque por seu modelo de governança com menores taxas para restaurantes e maior remuneração para entregadores. Realizamos entrevistas com entregadores e responsáveis pelos restaurantes e uma análise de conteúdo. Os dados indicam que no geral, o AppJusto é uma plataforma mais justa. No entanto, conseguimos identificar que os entregadores gostam de trabalhar em EBP's de entrega devido a flexibilidade e à capacidade de aumentar seus ganhos trabalhando mais, embora a flexibilidade seja uma ilusão, já que a maioria dos entregadores precisa trabalhar de 12 a 14 horas. Para os donos de restaurantes, o EBP serve como estratégia de marketing para atrair clientes ao restaurante, mas consideram as taxas extremamente altas. Para os entregadores e restaurantes não há chance de negociar com a plataforma e não existem alternativas semelhantes no mercado. O efeito-rede criou uma dependência dos participantes e sem uma alternativa similar eles se sentem presos sob um contrato injusto. Nosso modelo de GBJ indica que a justiça é a capacidade do indivíduo de fazer ou ser o que valoriza, e sempre que controlam seu próprio ambiente, são responsáveis por seu comportamento, caso contrário, afirmamos que os formuladores da governança se tornem responsáveis pelo comportamento que a governança induz. Essa conclusão tem implicações teóricas sobre o que é justiça e como os formuladores de políticas públicas podem focar na capacidade dos indivíduos indo além da distribuição justa de recursos. Inspiramos os juristas a rever a responsabilidade sob o contrato quando não há chance de mudar o sistema de governança. Os concorrentes do ecossistema podem repensar como uma GBJ pode melhorar e desencadear o efeito-rede, permanecendo justo. Finalmente, nossa GBJ abre a discussão sobre se ainda devemos usar contratos como um mecanismo justo, primeiro, porque nossos dados apoiam que a perspectiva contratualista sobre justiça não é justa

e, segundo, porque um contrato não permite liberdade, na verdade, eles podem restringir ou negar liberdades, então a capacidade deveria ser usada como princípio em qualquer desenvolvimento contratual.

**Palavras-chave:** Governança; Justiça; Ecossistemas; Capacidade; Plataforma; Contratualismo; Princípios.

## ABSTRACT

Platform-based ecosystems (PBEs) are interdependent actors interacting to create value. To attract and retain actors while fostering interaction between them, PBEs use governance elements. As more participants enter the network and interact, more value is created and shared, so the governance aims to trigger this network effect. Fair governance will attract and retain participants. Otherwise, PBE participants leave, and value is not created and shared. Notwithstanding, we do not find any governance model for PBE based on justice. The question arises: **Why do we need a justice-based governance (JBG) model for platform-based ecosystems (PBEs), and how should it be?** We used a qualitative approach through multiple case studies with three delivery platforms: Rappi, the largest platform in Colombia; iFood, the largest platform in Brazil; and AppJusto, a platform that has been gaining prominence for its governance model with minors fees for restaurants and higher pay for couriers. Our data indicates that AppJusto is a fair platform overall. Nevertheless, we identify that couriers like to work in delivery PBE because of the flexibility appeal and the capability to increase value earned by working more, although the flexibility is an illusion since most couriers need to work 12 up to 14 hours. For restauranteurs, the PBE is a marketing strategy to attract customers to the salon but consider the fees extremely high. In general, for couriers and restaurants, there is no chance to negotiate with the platform and no similar alternatives in the market. The network effect created a lock-in of participants in platforms such as iFood in Brazil and Rappi in Colombia. Without a similar alternative, participants feel trapped under an unfair contract. Our JBG model indicates that fairness is individuals' capability to do or be what they value, and whenever they control their environment, they are responsible for their behavior. Otherwise, we state that governance formulators become responsible for the behavior that the implemented governance systems induce. This conclusion has theoretical implications about what justice is and how policymakers could focus on individuals' capability beyond the fair distribution of resources. We inspire jurists to review the responsibility under the contract when there is no chance to change the governance system. Ecosystem competitors can rethink how a JBG can improve and trigger network effects while remaining fair. Finally, our JBG opens the discussion of whether we should still use contracts as a fair mechanism because our data support that the contractarianism perspective about justice is not fair; only because someone signed a contract does not mean it is fair. Second, because a contract does not allow freedom, it may restrict or deny liberties, so capability should be used as a principle in any contract development.

**Keywords:** Governance; Justice; Ecosystems; Capability; Platform; Contractarianism; Principles.

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# 1 INTRODUCTION

Work is an integral part of social life (DURKHEIM, 1999), and firms are the institutional arrangements our society found to organize work efficiently (COASE, 1937). Efficiency means reducing costs to produce a product or deliver a service, and to achieve this efficiency, workers need to work efficiently. To align workers with the firm's objectives, and in any agreement a firm needs, our society designed a governance instrument named "contracts," a formal or informal agreement that establish inputs and outcomes between parties that are supposed to be fair, meaning since all involved actors signed the "contract," it is just (RAWLS, 1971).

Notwithstanding, contracts may create awkward situations or unbalanced and unfair agreements. To solve unfairness issues, society developed the rule of law, the set of rules that every citizen is subject to. In this sense, there are inviolable rights that everyone can agree with and follow (HOBBS, 2009).

This short introduction includes topics that have been discussed for centuries. Work, firms, contracts, and justice are all interrelated, and any discussion about these topics is a discussion between the antithetical individualistic and collectivist rights. First, because contracts have limitations, they are incomplete in nature. To cite a few, not all terms can be specified upfront; the outcomes of a contract may "[...] depends on a state of nature which is yet to be realized." (HART; MOORE, 1999, p. 115) or the information asymmetry creates an imperfect negotiation. Second, to have a rule of law that integrates all individuals and solves contract conflicts, we need to reach a consensus related to a rule that everyone can agree with (SEN, 2009).

Intermediated by contracts, the relationship between workers and firms can promote fair or unfair situations. In 2017, President Michel Temer approved a law allowing companies to outsource their core activities (BRASIL, 2017), which somehow tried to reduce labor costs. In 2022, the Superior Labor Court in Brazil judged 3.175.358 cases, and the amounts paid to the claimants totaled BRL 38,73 billion [USD 8,1 billion] (TRIBUNAL SUPERIOR DO TRABALHO, 2022).

In the other hand, in the second quarter of 2023, Brazil reached an amount of 44,7% of informal work, a total of 44,2 million informal workers, which include those employed in the private sector, excluding domestic workers - without a signed work card<sup>2</sup>, domestic workers -

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<sup>2</sup> In Portuguese "Carteira de Trabalho"

without a signed work card, employer without CNPJ (National Register of Legal Entities), self-employed without CNPJ and family worker assisting in the main job (INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATÍSTICA - IBGE, 2023), and the individual microentrepreneur (MEI), a particular category in Brazil, on January 1<sup>st</sup> 2010 there were 45.440 MEIs, and on August 19<sup>th</sup> 2023 there are 15,4 million MEIs (BRASIL, 2023), an increase of 33,8%. This means that from the 98,91 million occupied workers, 60,3% of the Brazilian workforce is MEI or informal workers. At the same time, the percentage of workers with a work card in 2012 was 42,6%, and in the second quarter of 2023, is 40,1%, considering that the Brazil population grew 6,5% between 2010 and 2020 (INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATÍSTICA - IBGE, 2023).

In this scenario of a work force going to informality or becoming MEI, platforms, as an alternative to reduce costs, rise and expand, such as iFood founded in 2011 and Rappi in 2015. Platforms are two or multi-sided markets that provide the interface for two or more actors to interact (ARMSTRONG, 2006; ROCHET; TIROLE, 2003). Platforms facilitate exchange, reduce transaction costs, create network externalities, and increase economies of scale (EISENMANN; PARKER; ALSTYNE, 2006).

These ecosystems allow interdependent actors with self-interested objectives to create value together (BOGERS; SIMS; WEST, 2019). Platform-based ecosystems (PBEs) use a platform to intermediate the collaboration among actors (MUKHOPADHYAY; BOUWMAN, 2018). In the case of iFood and Rappi, they intermediate the connection between customers that want to receive their food at home paying a higher price, restaurants that want to delivery food without the need for a courier service structure, and couriers that receive for the courier service they provide, these actors complement each other, creating and sharing part of the value created (TEECE, 1986).

Platforms are at the center of the scientific debate in business, management, and economics. Some researchers view platforms and the ecosystems around them as creating new grounds for strategy (VAN ALSTYNE; PARKER; CHOUDARY, 2016), moving from Porter`s value chain to the new platform logic (FEHRER; WORATSCHEK; BRODIE, 2018). However, we are far from comprehending the platform phenomenon; it is a technology, a new business model, a strategy, or even a new kind of firm operating in a different format of hierarchies, markets, and networks.

Other researchers are not free from skepticism when the topic is platforms. Uberization, one of the many expressions used to define gig work, is one example of platforms' dark side.

An algorithm can control platform workers without legal protection or a safe social web (WENTRUP; NAKAMURA; STRÖM, 2019). In addition, Amazon Mechanical Turk, Fiverr, Freelancer.com, and Upwork are among the platforms impacting job quality negatively (WOOD *et al.*, 2019). Current debates around platforms are regulation (BUSCH *et al.*, 2021) and antitrust policies<sup>3</sup> (LENARD, 2019). The powers held by platforms can influence individuals and society, and protecting them may be necessary (BUSCH *et al.*, 2021). On the one hand, governments debate the principles of neutrality, fairness, and freedom on platform regulation (BOSTOEN, 2018). On the other, there is an issue if regulations and antitrust policies are not well designed and implemented; they can destroy value (PARKER; PETROPOULOS; VAN ALSTYNE, 2020).

As the debate on regulation intensifies, firms operating platforms should start to evaluate the self-regulation of their ecosystems. Self-regulation, where an organization regulates itself or by parties (e.g., customers) other than the government, maybe a viable solution to avoid value destruction (SUNDARARAJAN, 2016). However, only if self-regulation considers a fair balance of all interests and interested stakeholders. Otherwise, it increases the chances of government intervention (CAMMAERTS; MANSELL, 2020) to achieve fairness of intermediation (GAWER, 2021).

PBE and governments use governance, the rules that will influence and guide participants' behavior (BOURCERET; AMBLARD; MATHIAS, 2021), to regulate participants' behavior and limit platforms' reach. The design of a governance system – a set of principles, rules, practices, mechanisms, laws, and legislations of a firm or market sector – can foster or refrain from value creation and sharing (HUBER; KUDE; DIBBERN, 2017; TIWANA; KONSYSKI; BUSH, 2010). So, choosing the governance is as important as any other PBE process.

Zhang, Li, and Tong (2020) believe that more research is needed to evaluate the relation between platform governance, value creation activities, and platform effectiveness. In part, this is important because the trade-offs between value creation – who creates and how much value is created – and value share – who captures value based on the work of who – remain unexplored (RANGASWAMY *et al.*, 2020).

Another research stream that needs further research is how the governance changes over time and how this impacts value creation and sharing (WAREHAM; FOX; GINER, 2014).

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<sup>3</sup> Legislation against the formation of monopolies and factors that may harm free competition. In Brazil the law [12.529/2011](#) structure the Brazilian System for the Defense of Competition (Sistema Brasileiro de Defesa da Concorrência – SBDC).

Since PBE relies on network effects, in the beginning, the governance can share more value for participants. As the platform grows and participants are locked-in the ecosystem, the governance can change to concentrate more value on the hands of the PBE owner.

The network effect of PBE becomes evident only after the platform has a large number of participants, and more research is needed to understand the context of small, non-focal start-up firms rather than multi-national corporations (SELANDER; HENFRIDSSON; SVAHN, 2013).

Arm's length governance has low governance costs, but without the correct incentives, value co-creation is limited, and a question that remains is which factors drive governance practice variance (HUBER; KUDE; DIBBERN, 2017). In the same line, governance that promotes self-control are superior because provide sense of autonomy, but more research is need to evaluate how different control modes influence different PBEs (GOLDBACH; BENLIAN; BUXMANN, 2018).

Governance can implement several mechanisms, but the effectiveness of each governance mode is not fully understood (WIRTZ *et al.*, 2019). These modes can improve or degrade participants' satisfaction and also need more research (CENNAMO; SANTALÓ, 2019), as much as the mechanisms to recruit, motivate, and retain participants (JACOBIDES; CENNAMO; GAWER, 2018).

While there is a strong indication that ecosystems create value (BOGERS; SIMS; WEST, 2019), more studies on value share (GOMES *et al.*, 2018), performance (RITALA *et al.*, 2013; THOMAS; RITALA, 2020), and governance enduring mechanisms for success (RANGASWAMY *et al.*, 2020) remains as research gaps.

Since PBEs use governance to establish rules that incentivize participants to enter, remain, and create value in a platform ecosystem, in the same way, PBE governance that establishes rules that cannot attract and retain participants will not reach network effect. We could ask if there is a PBE governance mode that participants are willing to accept more than other governance modes and if this governance mode helps to answer the research gaps of PBE governance, including value creation, share, performance, and participants' satisfaction, or in other words, that is fair or just for everyone?

These bring us to our question: **Why do we need a justice-based governance (JBG) model for platform-based ecosystems (PBEs), and how should it be?**

One of the most recent contractarianist theories of justice argues that we should develop the contracts from an original position, in which we use a veil of ignorance to develop the laws. Behind this veil of ignorance, it would be impossible to know which will be our position in society, as the wealthiest or poorest. Because of this, the original position and the contract would be fairer since we would decide by a distributive wealth principle. Finally, a 'reflective equilibrium' process would be necessary, in which we discuss the contract terms back and forth with participants until we reach an agreement (RAWLS, 1971).

Use distributive justice may not be the best way to solve fairness problems, mainly because the equal distribution of wealth may not mean that we can attend to individual needs. For example, a wheelchair person will need more resources from public transport to go from one place to another than a two-legged walker (SEN, 2009).

Another argument against distributive justice is that any distributive justice will discriminate (ARISTÓTELES, 2015). We need to ask which discrimination is fair (SANDEL, 2009). In this sense, our society has been working with the notion of fair equality of opportunities, indicating that opportunities are spread worldwide, and everyone can reach them, such as the meritocracy system (RAWLS, 2005).

In practice, that may not be the case, and it becomes essential to differentiate between opportunities and capabilities in justice. Capabilities are people's ability to achieve what they value or be someone they value. It is not just because some opportunities exist in the world that everyone can reach them, and we need to be capable of accessing them (SEN, 2009).

Capability is also related to the freedom people have to do or be what they value. If opportunities exist worldwide, but other factors constrain individuals, they are not free (SEN, 2009).

The capability approach is far from perfect. Although the capability to achieve or be what each one values sounds valorous, it may also feel subjective. For this reason, Nussbaum (2003) argues that a capability approach should be more specific and propose ten capabilities for individuals, which include control over one's environment. However, she distorts the capability approach, saying that people should have "[...] the right to seek employment on an equal basis with others" (NUSSBAUM, 2003, p. 42) rather than the capability to seek employment.

In summary, these justice theories set part of the basis of our theoretical background in search for a JBG model. We set general and specific objectives to develop this model and answer our research question.

## **1.1 General Objective**

Propose a JBG empirical and theoretical model.

## **1.2 Specific Objectives**

- a) Identify JBG's perception of PBE actors;
- b) Identify PBE performance;
- c) Comparison among governance of PBE cases;
- d) Improve our JBG model.

Our methodological approach comprises literature reviews, systematic reviews, and a multiple case study on PBE. More specifically, we choose delivery platforms from Brazil and Colombia to compare from different contexts. Adding to this scenario, we choose a delivery platform in Brazil that uses a fair governance model from a distributive justice perspective. In other words, they charge less from restaurants, pay more for couriers, and the final product for the consumer through the delivery platform is cheaper than competitors.

This methodological approach better suits our research question; first, to the best of our knowledge, no other studies in PBE use justice theories, making a qualitative and deductive approach necessary. Second, several aspects of PBE governance remain unexplored and untouched, indicating a field demanding an exploratory investigation. Third, from a policy perspective, society is still debating how to regulate PBE and control these monopolies without destroying the value they create (PARKER; PETROPOULOS; VAN ALSTYNE, 2020), which encourages a methodological approach that can investigate multiple perspectives from PBE participants, from different context, and including firms with different sizes and governance modes.

## **1.3 Justification**

For PBE, retaining participants is extremely important because the value is created by the number of actors and interactions that trigger the network effect (PARKER; VAN ALSTYNE; CHOUDARY, 2016). To attract actors and increase interactions, PBEs need to use governance elements, but to our knowledge, no study has looked at JBG models for PBEs.

Delivery platforms are highly criticized in the academic field (CARDOSO; ARTUR; OLIVEIRA, 2020) by news (LUCIANO, 2022), and the fairness of its working conditions even

led to an international report (FAIRWORK, 2023a, 2023b), primarily related to the persuasive dimensions of platform governance (SHESTAKOFSKY; KELKAR, 2020). This may indicate the need for governance improvement. Although any organization can use our JBG model, an immediate managerial contribution is for delivery platforms, platforms, and ecosystems.

A JBG model for PBE can improve competition in the market and help newcomers trigger the network effect that platforms need to create and distribute value. With higher competition, it would be possible to improve working conditions, provide, for example, the fair principles that the Fairwork project argues as necessary, such as fair pay, fair conditions, fair contracts, fair management, and fair representation (FAIRWORK, 2023b), or other principles that platform couriers or restaurants consider relevant since our research will evaluate this two platform sides.

A JBG model can bring insight into public policy development that improves society at all levels. As some justice theorizes, we need principles that no one would refuse to accept to achieve our common goals. Principles that are broadly accepted can be used to develop fair governance systems, which our literature review suggests. It is not just stakeholder participation but a deep involvement to provide the capability of individuals to do or be what they value.

According to the contractarianist perspective, when a set of people accept the terms of a contract and sign it, we have a fair situation; in reality, that is not always the case. In several cases, contracts are unfair instruments of coercion (SANDEL, 2009). If a theory of justice wants to represent what is a phenomenon, contracts cannot be used to represent what fairness or justice is.

The capability approach of justice is an alternative, but of limited applicability since it deals with the freedom of individuals to do or to be what they value, and it is so broad that it can go from making a nazi speech to having three meals a day back to buy a Ferrari. The alternative is to refine the capabilities and make them more specific (NUSSBAUM, 2003), a work that we propose is this thesis and can contribute to improving theories of justice.

Theories of justice are the definition of rules from a contractarianist perspective or the definition of principles in a deontological view, which is the exact definition of governance, the set of rules that guide behavior (BOURCERET; AMBLARD; MATHIAS, 2021). A contribution to better define a theory of justice is a contribution to governance, especially in an ecosystem context. Ecosystems are interdependent actors that interact to create and share value (BOGERS; SIMS; WEST, 2019), but this interaction, guided by formal or informal governance systems, can incentivize participants to enter, remain, or leave the ecosystem.



Finally, a JBG can provide insight into the improvement of sustainable development goals (SDGs) (UNITED NATIONS, 2015). The SDGs are guidelines for countries, and most goals deal with justice and capability topics at some level or another.

A debate of justice is always about freedom and politics, the management of the *Polis* (city-state). These topics are inseparable and may deal with incommensurable views. Notwithstanding, we hope to provide an interesting debate on this topic and push the knowledge boundaries further. Enjoy the reading.

## 2 THEORETICAL BACKGROUND

This theoretical background will approach several topics in the following order. First, we contextualize the research on ecosystems, using literature and systematic literature reviews, specifically PBEs, considering as a relevant context to explore the gaps related to governance in this context. Second, we explore justice as the leading theory in this thesis. Third, we connect justice with governance; using a systematic literature review, we overlap the governance topic with justice. Then, we present the developed JBG model. Finally, we bring a new set of theories based on our findings that will help to improve our JBG model and support the discussion.

### 2.1 Ecosystems

The first definition of a business ecosystem, a term coined by Moore (1993), stated that a business ecosystem is a set of companies that coevolve capabilities around a “new innovation.” In this definition, Moore (1993) understands that an ecosystem exists when the boundaries are not limited to an industry, including suppliers in many industries and customers from different market segments to form the ecosystem. The interaction of the actors becomes more relevant with time, and we need new lenses to understand this growing phenomenon.

Although the redundancy of Moore (1993) about the *new innovation*, it is clear that innovation sets the base around the purpose that guides the interaction of the companies in the ecosystem. The companies will cooperate and compete at the same time, in a coopetition strategy, to create and capture value (BRANDENBURGER; NALEBUFF, 1996), trying to innovate with partners and also protect the leadership position from other companies inside the ecosystem, and at the same time building barriers for different ecosystems to thrive.

The body of knowledge of ecosystems is diverse. However, it is far from consolidation, and we adopt the definition of ecosystems as “an interdependent network of self-interested actors jointly creating value.” This definition tries to encompass the success criteria, showing that the reason to create an ecosystem is that no single actor could, alone, create value. The interdependence of actors indicates that each one is dependent on the other to create value (BOGERS; SIMS; WEST, 2019).

The study of ecosystems in management is scaling fast (GOMES *et al.*, 2018), and in consequence, the division of topics and definitions increases as well. Using an ecosystem to explain a set of interactive actors creates multiple meanings. Some of them include the industrial ecosystem, innovation ecosystem, business ecosystem, entrepreneurship ecosystem

(PILINKIENĖ; MAČIULIS, 2014), PBE, digital PBE (HELFAT; RAUBITSCHKE, 2018), and others arise. This diversity indicates that establishing a focus is necessary; our study targets the PBEs.

## **2.2 Platform-Based Ecosystems**

In PBE, the ecosystem uses a platform to intermediate the collaboration among actors (MUKHOPADHYAY; BOUWMAN, 2018). Value creation happens through innovation and intermediation. Innovation platforms adopt platforms as architectures for innovation, and transaction platforms act as facilitators of interaction or intermediation. Hybrid PBE embraces both types and is the most relevant business in today's economies, such as Apple, Google, Amazon, and Facebook (CUSUMANO; YOFFIE; GAWER, 2020; JACOBIDES; CENNAMO; GAWER, 2018), meaning that innovation and intermediation are complementary aspects of a PBE.

PBEs are meta-organizations in the sense that the actors are autonomous. Competition occurs in three levels: between platforms (Apple iOS vs. Android), between platform leaders and complementors (Google Android proprietary apps (e.g., Gmail) vs. complementors apps), and between complementors (game developers inside Sony's PlayStation platform) (KRETSCHMER *et al.*, 2020; TEECE, 2018).

To better understand the concept of PBE, some characteristics of this kind of ecosystem are necessary, and the first one is modularity. In PBE, the platform allows the development of solutions based on modules. Modularity is the nature and strength of complementarities and defining features of platforms. Therefore, modularity is necessary for an ecosystem to become a PBE (JACOBIDES; CENNAMO; GAWER, 2020).

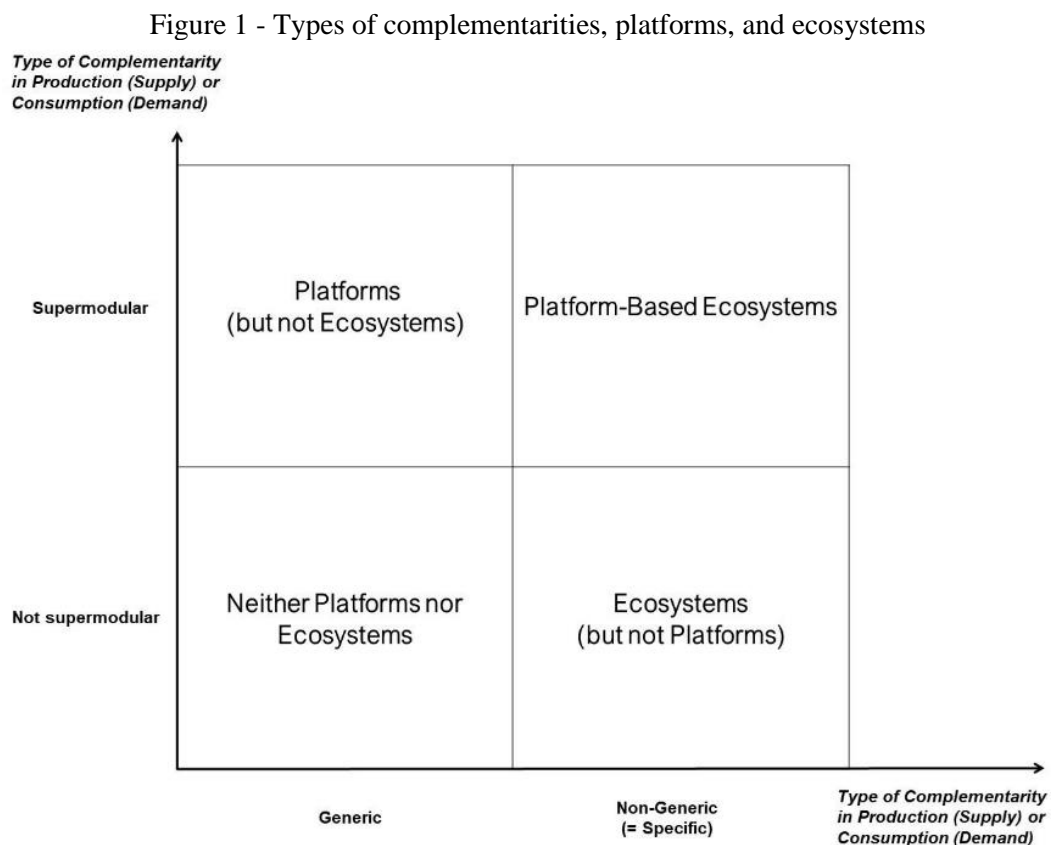
Complementarities are products, services, or assets that complement each other (TEECE, 1986). They can exist on the production side, where two or more components complement each other – chassis, wheels, and tires are complementary assets on the production side, just like Android OS and apps. Alternatively, on the consumption side, two or more components work together to benefit the customer, as a smart band with the mobile phone and apps (JACOBIDES; CENNAMO; GAWER, 2018).

Complementarities can exist in a continuum from generic, where assets complement each other but can exist isolated (like kettles and tea bags), to non-generic, where one asset is necessary to the other. Specialized non-generic assets are directional, where one asset needs the other to create value, but the contrary is not valid (e.g., Android OS and third-party apps).

Cospecialize non-generic assets are bidirectional, where both assets do not create value separated (e.g., Nespresso coffee machine and own-brand capsules) (JACOBIDES; CENNAMO; GAWER, 2018; TEECE, 1986).

Complementarities are supermodular or non-supermodular. Supermodular means that more of one asset increases another asset's value (JACOBIDES; CENNAMO; GAWER, 2018, 2020; MILGROM; ROBERTS, 1990), like Sony's PlayStation console and third-party games, while non-supermodular means assets do not add value to each other.

Considering the PBE characteristics, we end with Figure 1. Supermodular and non-generic complementarities in the production or consumption side are PBEs (JACOBIDES; CENNAMO; GAWER, 2020).



Source: (JACOBIDES; CENNAMO; GAWER, 2020)

Now, we clarify the differences between ecosystems and organizational networks. In ecosystems, the complementarities are non-generic and supermodular or non-generic and non-supermodular. Nevertheless, most importantly, they operate without full hierarchical control. On the other hand, organizational networks operate with formal contracts or informal collaboration with non-generic complementarities (SHIPILOV; GAWER, 2020). Another

dimension necessary to inter-organizational networks is common goals and objectives (WEGNER; VERSCHOORE, 2021). In PBE, generativity guarantees that actors can innovate without coordination (ZITTRAIN, 2009). Consequently, generativity allows value creation through complementarities development without common goals.

The ultimate goal of networks is to develop collaborative value (WEGNER; VERSCHOORE, 2021), “the transitory and enduring benefits relative to the costs that are generated due to the interaction of the collaborators and that accrue to organizations, individuals, and society” (AUSTIN; SEITANIDI, 2012, p. 5). Otherwise, in PBE, the goal is to create value through complementarities, with or without collaboration.

We do not view PBE as a new organizational form along with markets, hierarchies, or networks. However, we understand that PBE uses some of the best features of markets, hierarchies, and networks to develop an improved organizational form. Leveraging non-generic and supermodular complementarities. In the next section, we explore platforms.

### 2.2.1 Platforms

The first use of the concept platform came from engineering design, and probably the most known use is in the auto industry. In the 60s, GM used the same chassis (platform) to build different vehicles. However, platforms were not limited to the chassis, and cars could share design, parts, and processes in search economies of scale and scope (TEECE, 2018). In this context, platforms where modular product architectures (JACOBIDES; CENNAMO; GAWER, 2020; TIWANA; KONSZYNSKI; BUSH, 2010).

In the '80s, firms like Microsoft and Intel named their business models platforms. Later, firms like Facebook and YouTube started to describe their relationship with many users as platforms, where “user” is the common term used to describe all the actors who engage with the same platform differently (SHESTAKOVSKY; KELKAR, 2020). In this context, platforms are multi-sided markets.

In the economic view, platforms also developed as two or multi-sided markets, where two or more actors interact via intermediaries or “platforms” (ARMSTRONG, 2006; ROCHET; TIROLE, 2003). The platform facilitates exchange, reduces transaction costs, creates network externalities, and increases economies of scale (EISENMANN; PARKER; ALSTYNE, 2006), providing an increase in outcomes proportionately higher than costs (MURRAY; WHITE, 1983).

Platforms become an intermediary of human life, sometimes transporting meaning and other times as mediators, transforming, translating, distorting, and modifying the meaning of what they carry (LATOUR, 2005). Platforms are present in economic, social, and political interactions and have modified many industries, like retail (Amazon), transport (Uber), accommodation (Airbnb), and software development (Apple iOS and Google Android) (ASADULLAH; FAIK; KANKANHALLI, 2018).

A common definition of platform does not exist and may never be due to the phenomenon's complexity. However, to frame our context, Table 1 bring some usual definitions to comprehend the different views of platforms better, exploring the ones that suit the development of our model.

Table 1 - Common platform definitions

<b>Term</b>	<b>Definition</b>	<b>Reference</b>
Two-sided or multi-sided Market	Platforms allow the interaction between actors and facilitate the transaction (creating value).	(ARMSTRONG, 2006; EISENMANN; PARKER; ALSTYNE, 2006; HAGIU; WRIGHT, 2015; HÄNNINEN; MITRONEN; KWAN, 2019; MCINTYRE; SRINIVASAN, 2017; MELAMED; PETIT, 2019; ROCHET; TIROLE, 2003; THOMAS; AUTIO; GANN, 2014)
Platform	The platform consists of elements that are used in common or reused between implementations.	(BOUDREAU, 2010)
Access-based consumption	A market-mediated transaction that does not transfer good ownership.	(BARDHI; ECKHARDT, 2012)
Collaborative consumption	People coordinate the acquisition and distribution of resources by tax or other compensation.	(BELK, 2014)

Web 2.0	Internet websites allow the sharing of content and connection with other humans.	(BELK, 2014)
Internal Platform	Structured assets that allow the firm to develop and produce a set of derivative products.	(GAWER; CUSUMANO, 2014; THOMAS; AUTIO; GANN, 2014)
External Platform	Like internal platforms, they use the structure of external firms to develop their complementary products, services, and technologies.	(GAWER; CUSUMANO, 2014; MCINTYRE; SRINIVASAN, 2017)
Technological Platform	Organizations and meta-organizations that evolve and: 1) coordinate actors that can innovate and compete; 2) create value through scope economy in supply and demand-side; 3) offer a hub and spot modular technology.	(GAWER, 2014)
Organizational Platform	The organizational structure that guards firm resources and capabilities.	(THOMAS; AUTIO; GANN, 2014)
Ecosystem	Set of shared technologies that Support and create value through specialization and complementarities.	(THOMAS; AUTIO; GANN, 2014)
Technology in general	Result of cumulative investment in R&D that generates a family of technological options for a region or country industry.	(THOMAS; AUTIO; GANN, 2014)
Multi-sided platforms	Unite producers and customers to high-value exchanges. The main assets are Information and interaction that generate value and competitive advantage.	(DAVID-WEST; UMUKORO; ONUOHA, 2018; VAN ALSTYNE; PARKER; CHOUDARY, 2016)
Sharing Economy	Peer-to-peer-based activities of obtaining, giving, or sharing access to goods and services. They are	(HAMARI; SJÖKLINT; UKKONEN, 2016)

	coordinated through community-based online services.	
Access economy	Share sub-used capital for optimization purposes.	(ACQUIER; DAUDIGEOS; PINKSE, 2017)
Platform economy	Intermediate, not centralized exchanges between peer-to-peer (P2P), providers, and users through the platform.	(ACQUIER; DAUDIGEOS; PINKSE, 2017; MONTALBAN; FRIGANT; JULLIEN, 2019; UZUNCA; BORLENGHI, 2019)
Community-based economy	Coordinate interactions without contractual instruments, non-hierarchical, and without monetization.	(ACQUIER; DAUDIGEOS; PINKSE, 2017)
Gig economy	People who use APPs, known as platforms, to sell their Jobs, in general, as freelancers.	(TASSINARI; MACCARRONE, 2019; WOOD <i>et al.</i> , 2019)
Attention platforms	Supply content for consumers who spend their time on the platform.	(LENARD, 2019)

Source: author (2021)

Some papers present more than one definition, mainly because it is hard to encompass all the platforms' activities and contexts where platforms exist. For example, Lehdonvirta *et al.* (2019) cite the sharing economy as non-commercial transactions between physical persons. However, although the platform economy includes commercial transactions, they also evaluate the platform as a multi-sided market and develop their global platform economy from the perspective of offshoring work, which is close to the definition of the gig economy. For this reason, the definition of a platform may be incomplete without the context and activities performed by the platform.

Based on the myriad of platform definitions, two common views stand out; the first defines platform from a technical point of view as a codebase that complementors can use to develop solutions and innovations, and the other from a non-technical point of view as a two-sided market (ASADULLAH; FAIK; KANKANHALLI, 2018; TIWANA; KONSYNSKI;



BUSH, 2010). However, a platform can be a codebase to develop solutions and an intermediary that facilitates the connection between two or more sides of the market.

Some authors will understand the platform as the ecosystem, where a set of actors contribute to a focal value proposition (KAPOOR, 2018), while others may view the platform just as a mediator, providing the matching and facilitating tools for interaction and exchange (ECKHARDT *et al.*, 2019).

Independent of the view of platforms as a transaction, innovation, or hybrid, recent research has identified that value has a critical role in ecosystems; however, we do not fully understand its impact. Some research questions include how the local challenges interfere with value creation, how entrepreneurs use the ecosystem to create value (GOMES *et al.*, 2018), and which mechanisms members will need to implement to capture the value created (BOGERS; SIMS; WEST, 2019; CHESBROUGH; LETTL; RITTER, 2018).

We argue that PBE is an ecosystem that uses platforms to gain scale. As meta-organizations, the organization composed of other organizations (AHRNE; BRUNSSON, 2005), PBEs must implement governance mechanisms to incentivize the development of complementary solutions, create value, and improve the overall performance of the PBE.

Finally, the subsequent paragraphs explore this topic since performance is key in our JBG model.

A PBE creates value through network externalities, meaning the platform's value increases as the user base increases. Direct externality happens when the platform's number of same-side users increases (e.g., gamers of a videogame console). An indirect externality occurs when the number of all sides of the platform increases (e.g., suppliers and buyers in a marketplace platform) (DE REUVER; SØRENSEN; BASOLE, 2018; KATZ; SHAPIRO, 1985). *Direct and indirect network effect increases returns to scale* (EISENMANN; PARKER; ALSTYNE, 2006), meaning that outcomes increase proportionately more than costs (MURRAY; WHITE, 1983).

The network effect and return to scale lead to “*winner-take-all*” dynamics, and the leading platforms concentrate the market. However, the “*winner-take-all*” may not happen in multi-homing scenarios, where the user has more than one platform option, when the network effect is local, or operates in a small niche. For this reason, PBE’s owner tries to develop *lock-in* strategies, increasing the users’ cost to change to another platform (EISENMANN; PARKER; ALSTYNE, 2006; GAWER, 2020).

In a PBE, no single actor can create the same amount of value they create together or create value at all. Although value creation is essential, the amount of value that each actor captures is exceptionally relevant, mainly because actors in the platform that do not capture value may leave, harm the network effect, and hinder the growth and development of the platform (DE REUVER; SØRENSEN; BASOLE, 2018; EISENMANN; PARKER; ALSTYNE, 2006).

Suppose users trust the PBE owner will adopt a fair position in all justice dimensions. In that case, the chance that more actors join the platform may be higher, increasing network effects direct and indirect, creating more value for all the PBE actors and leading to economies of scale and winner-take-all dynamics. Winner-take-all happens when a PBE grows fast enough to dominate the market before other competitors can reach the same users (GAWER, 2020), guaranteeing a higher performance to the PBE. The number of transactions is also a metric of performance. As more transactions happen through the platform, a higher value is created and shared (HEIN *et al.*, 2020), leading to higher PBE performance.

In the next section, we explore the gaps in governance research in PBE.

### 2.2.2 Research gaps in PBE's governance

Governance can be seen as the process of designing ecosystem mechanisms. These mechanisms include rules informing and regulating how the platform creates complementarities and values that guide value creation and sharing (HUBER; KUDE; DIBBERN, 2017; TIWANA; KONSZYNSKI; BUSH, 2010). The platform rules may present characteristics that foster or refrain from value creation and sharing.

Critical characteristics influencing the governance performance concerning collaboration may include prior conflict or cooperation, participation incentives, power and resource imbalances, leadership, and institutional design (ANSELL; GASH, 2008; WEGNER; VERSCHOORE, 2021).

In platform environments, governance has the power to shape complementors social interaction, like knowledge sharing, meaning that managing competitive and cooperative incentives is critical in PBE. However, some authors indicate that more research is needed to evaluate the relation between platform governance, value creation activities, and platform effectiveness (ZHANG; LI; TONG, 2020).

In the same way, an exchange, ruled by governance, generates trade-offs associated with value creation and value appropriation from the point of view of the different participants. One

trade-off is about risk, where the platform can increase a driver score if it arrives on time and makes the customer happier, creating an incentive to reduce this time. Nevertheless, the same rule increases the risk of an accident if the calculated time is unrealistic based on the day of the week or daytime. The choice among the forms of control leads an organization to make trade-offs based on risk and cost. However, the trade-offs between value creation and value share remain unexplored (RANGASWAMY *et al.*, 2020).

Governance is not a static process but an evolving one that must consider the diverse set of actors, relations, and other elements that contemplate a PBE, embracing, for example, the changing maturity levels through time for the same set of antecedent conditions. Governance is implemented at a point in time but must also evolve, considering PBE lifecycle changes. For example, at the beginning of the PBE, loose governance may be more important to trigger the network effect. In later stages, the quality of complementarities may be more relevant and indicate more strict governance mechanisms (WAREHAM; FOX; GINER, 2014).

Our SLR on PBE governance indicates several opportunities for future research. As an example of the so many doubts, PBE owners will try to promote complementors lock-in and avoid multihoming, and complementors should pursue a pluralistic strategy, operating in multiple digital ecosystems and avoiding investing all efforts and resources in a single ecosystem (SELANDER; HENFRIDSSON; SVAHN, 2013). Thus, governance will be increasingly important in balancing PBE owner's and participant's frictions; however, we need more research in several areas.

First, more research is needed to understand the context of small, non-focal start-up firms rather than multi-national corporations. At the same time, "More research is needed on how focal actors deal with their potential need of engaging in capability search and redeem across ecosystems that they do not control." (SELANDER; HENFRIDSSON; SVAHN, 2013, p. 195). Capability search is the capacity to extend a firm's innovation habitat and the capability to redeem the capacity to develop, distribute, or monetize a firm's products and services (SELANDER; HENFRIDSSON; SVAHN, 2013).

The relationship between generativity and governance throughout its evolution phases is not fully understood. If the governance needs to change over the PBE lifecycle, we must investigate how. More "[...] research on control mechanisms in networks that resemble technology ecosystems, including reseller, partnership, and franchising networks where responsibility is distributed across more than one entity." is needed (WAREHAM; FOX; GINER, 2014, p. 1212).

Ecosystem-wide rules and values considerably vary and change over time. For example, arm's length governance has low governance costs; however, a moderate co-creation of value, with dyadic governance, increases value co-creation but governance costs. For this reason, we need further research to explore factors that drive governance practice variance (HUBER; KUDE; DIBBERN, 2017), while at the same time, a better understanding of attitudes and approaches enables the identification and success of new ecosystems (JACOBIDES; CENNAMO; GAWER, 2018).

Governance that promotes self-control is superior to formal control because it allows higher perceived autonomy, fostering continuance intentions and application quality. Control is the "[...] controller's attempts to influence a contolee to act according to the controller's objectives [...]," and it influences PBE performance. However, more research is needed to evaluate how different control modes influence different PBEs (GOLDBACH; BENLIAN; BUXMANN, 2018, p. 6).

More than just selection criteria of PBE participants are needed to regulate collective action and minimize moral hazard problems. The PBE orchestrator must adopt dynamic and adaptive governance systems, promoting generativity and increasing quantity while avoiding a drop in user satisfaction. More research is needed to understand how value and market performance are affected. Some questions that arise are: "Could the benefits of a greater variety of complements from enhanced generativity compensate the platform system for degrading user satisfaction? When and in which sectors might this be the case?" (CENNAMO; SANTALÓ, 2019, p. 636).

Wirtz, So, Mody, Liu, and Chun (2019, p. 474) developed research on peer-to-peer platforms, proposing several future research questions. One is "What is the relative effectiveness of different types of institutional, community-based, and legal governance mechanisms and incentives for creating ecosystem value and preventing user disintermediation?". Other future streams include trust-building, platform communities, and platform loyalty.

It is clear that different governance conditions affect platform participation (O'MAHONY; KARP, 2020), shaping complementors social interactions (ZHANG; LI; TONG, 2020), indicating that "A better understanding of tactics and governance mechanisms that hub firms use to recruit, motivate, and retain participants will be helpful." (JACOBIDES; CENNAMO; GAWER, 2018, p. 2268).

Governance mechanisms can drive ecosystem performance, impacting value creation and capture for ecosystem participants (RITALA *et al.*, 2013; THOMAS; RITALA, 2020). Value is central in management and organizational literature in micro and macro-level research (LEPAK; SMITH; TAYLOR, 2007) and ecosystems. Although there is strong evidence that ecosystems create value (BOGERS; SIMS; WEST, 2019), there remains a gap in how value is shared. Because the place of value creation – the innovation ecosystem – may not be the same of value capture – the business ecosystem (GOMES *et al.*, 2018). Platforms may also face value creation and appropriation issues, so future research should explore this topic further. At the same time, “intermediate governance forms might provide an enduring mechanism for success.” (RANGASWAMY *et al.*, 2020, p. 84).

Comprehending PBE is far from its end; although some studies explore this topic, we need further research to explore and understand the organization and coordination of this kind of ecosystem. Furthermore, we need to go beyond the dyadic relationship between platform owners and complementors, creating the opportunity for a fruitful agenda for future research (CHEN *et al.*, 2021).

Previous studies also urge future research to explore different contexts (INOUE, 2021; SONG *et al.*, 2018) and methods (HURNI *et al.*, 2021; JINGYAO; GANG; LING, 2021; SUSSAN; ACS, 2017). Based on our systematic literature review, we understand that governance in PBE is a current and vital research stream that needs further exploration. The doubts about the balance that governance can bring to PBE and the relation between all participants remain unanswered. As our thesis establishes, JBG can promote the tuning of governance practices and mechanisms of PBEs, leading to higher performance.

In PBEs, governance establishes standards that guide how things work for all participants (HUBER; KUDE; DIBBERN, 2017; KRETSCHMER *et al.*, 2020). In addition, the rules and values will describe decision rights and accountability to promote alignment between participants (GREGORY *et al.*, 2018). Governance will aim to solve challenges related to the openness of the PBE and the value captured by each actor (SCHMEISS; HOELZLE; TECH, 2019). This set of governance elements also called the social processes, will manage the independent complementors toward value co-creation (SAADATMAND; LINDGREN; SCHULTZE, 2019).

Properly implementing governance elements will motivate third-party firms to join and invest in the PBE. Therefore, it becomes important to orchestrate the innovation process, access, and interaction (SAADATMAND; LINDGREN; SCHULTZE, 2019). PBE governance

concerns the design and deployment of governance choices (ZHANG; LI; TONG, 2020). In other words, PBE governance is “[...] how platform owners utilize rules, constraints, and inducements to address market failures and enable interactions” (CHEN *et al.*, 2021, p. 2).

Notwithstanding, governance can face some paradoxes in ecosystems; one is developing stable and evolvable ecosystems simultaneously. Stable in the sense that complementors and customers need guarantees that their investment will return and be evolvable to assure adjustment to customer requirements, market shifts, and technology evolution (WAREHAM; FOX; GINER, 2014). Without guaranteeing that fair value is shared among participants, the incentives to participate in the ecosystem may drop, and the organization may fail (MUKHOPADHYAY; BOUWMAN, 2018).

In the next section, we explore the main theories of justice that support our JBG model.

## 2.3 Justice

This section presents the core discussion of justice that guided the development of our JBG model. However, we encourage the readers willing to dig deeper into the discussion about justice to explore APPENDIX A – ESSAY ON JUSTICE for further reference.

Principles represent a guideline to solve the problem of interdependence and uncertainty. Principles such as market, hierarchy, clan, authority, price, and norm operate as mechanisms that orient, enable, and constrain economic behavior (MCEVILY; PERRONE; ZAHEER, 2003).

Principles serve for the development of practices. Practices are institutionalized processes designed to coordinate partners that want to work together (FACCIN; WEGNER; BALESTRIN, 2020). The number of practices used to perform functions is unlimited (WEGNER *et al.*, 2017). Their creation can solve challenges individuals and organizations face and evolve to deal with new problems (BOOHER, 2004).

It is important to note that Rawls (2004, p. 164) also uses the term ‘practices’ to define “[...] any form of activity specified by a system of rules which defines offices, roles, moves, penalties, defenses, and so on, and which gives the activity its structure.”. Including examples such as “[...] games and rituals, trials, and parliaments, markets and systems of property.”.

In a PBE, the non-focal actors – an actor in the ecosystem's periphery – will not rely on a single ecosystem to address all innovation layers and should pursue a pluralistic strategy, avoiding investing in a single ecosystem. Non-focal actors may not accept to participate in an ecosystem with highly restrictive practices that prevent actors' capability for developing,

distributing, and monetizing their products and services (SELANDER; HENFRIDSSON; SVAHN, 2013).

We understand that participation in a PBE is an exchange process. Interpersonal interaction, which includes the exchange of resources, will lead to particular social behavior. These social behaviors use social exchange theory (SET) to comprehend related phenomena (HOMANS, 1958; PRIPORAS *et al.*, 2017). Some SET variances include equity and justice theories<sup>4</sup>, including distributive, procedural, interactional, and informational justice (COLQUITT *et al.*, 2001). These theories promote the formulation of JBG practices, as we elaborate on below.

*Distributive* justice evaluates the alignment of outcomes with the inputs in an exchange. People may feel wronged whenever there is an imbalance between outcome and input (ADAMS, 1963). The single rule of equity is simple: reward distribution should align with the contributions of each actor. However, each actor will judge the fairness of distribution based on its perception and against a referent. If someone understands that a colleague receives a higher outcome but applies the same effort, the feeling of inequality may arise (COLQUITT, 2001).

Inequity feeling may lead to some behaviors by the person that feels it, like a) increase inputs that are low relative to other inputs and his outcomes; b) decreasing inputs that are high relative to other inputs and his outcomes; c) increasing outcomes that are low relative to other outcomes and his inputs; d) decrease his outcomes that are high relative to other outcomes and his inputs; e) leave the field; f) psychologically distort his or other's inputs and outcomes as required; g) force others to leave the field; or h) change his referent other (ADAMS, 1963; PRITCHARD, 1969).

*Procedural* justice is a second variable to measure the fairness of a situation. It concerns individuals' perceptions about the fairness of formal procedures governing decisions. For example, how to influence these procedures (MASTERSON *et al.*, 2000) and adherence criteria such as a) consistency, b) lack of bias, c) correctability, d) representation, e) accuracy, and f) ethicality (LEVENTHAL, 1980).

*Interactional* justice is related to interpersonal treatment as the procedures are implemented (BIES; MOAG, 1986). In addition, interactional justice relates to decision-makers perceived respect and sensitivity to explain the decisions' rationale. Thus, although it may be

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<sup>4</sup> For a more in depth discussion on theories of justice, please head to APPENDIX A – ESSAY ON JUSTICE (p. 124).

related to procedural justice, it is a distinct dimension (BIES; SHAPIRO, 1987; COLQUITT, 2001). Most platforms use algorithms to develop some level of interaction, indicating that the digital agency (ÅGERFALK, 2020) can have a role in how the exchange is established and conducted.

*Informational* justice explains why procedures work in specific ways or the current distribution of outcomes in particular amounts (GREENBERG, 1993). Measure models that evaluate that interactional and informational justice should be separate components since they have differential effects (COLQUITT, 2001).

Research on crowdwork platforms found that workers use distributive and procedural justice to evaluate the work mediated via the PBE (PFEIFFER; KAWALEC, 2020). Using the platform technology increases distributive, procedural, and informational justice, leading to higher satisfaction, trust, and commitment to the PBE (YANG; WANG; ZHAO, 2019).

Although research on PBE using theories of justice is unfamiliar, other research fields have found exciting results. Different and conflicting interpretations of fairness can deteriorate economic value, harming the inter-organizational relationship and leading partners to leave (GASSENHEIMER; HOUSTON; DAVIS, 1998).

When stronger economic integration exists, members of strategic alliances would significantly lose. Economic integration is the extent to which pooled resources of the coalition are embedded so that if one party withdraws, others have more to lose. In addition, other variables such as trust, joint governance, and procedural justice will significantly impact alliance *performance* (LUO, 2008). These findings may indicate that PBE with economic integration members must rely on justice dimensions of governance.

The JBG of PBE is implemented through practices and architecture mechanisms. If PBE owner relegate these practices and architecture mechanisms, the PBE may not gain scale and trigger the network effect, an intrinsic characteristic of platforms.

In the next section, we explore a different perspective of justice.

### **2.3.1 Justice as capability**

This theoretical topic was added after data collection. Based on the empirical findings, we faced issues without theoretical support and were not foreseen in the theoretical model. However, given the relevance of the findings for the theoretical contributions of this thesis, we decided to incorporate this chapter about the contractarianist view that supports the analysis of justice and will contribute to improving the JBG model.



Justice has been discussed across the centuries by several cultures in different ways. Its origins derive from the Latin *iustus*, meaning up-right, righteous, equitable, generally per the law, lawful, true, proper, perfect, and complete (VEREMCHUK, 2021). To act right according to a law is where justice connects with governance.

Justice and fairness are the two main verbalizers of justice (VEREMCHUK, 2021). In our methodology, we adopted a perspective on fairness, which includes evaluating inputs and outcomes and letting people judge the fairness of their situation. It is necessary to balance these inputs and outcomes to turn a situation of unfairness into fairness. However, this view may create so many variations that it would be impractical to implement any balance. To solve this situation, we must develop a social arrangement that reasonable people could accept. This contractarianism view is what John Rawls (1971) explored in his Theory of Justice, where there is an original position that defines the rules that will guide society, a social contract. This original position should be developed behind a veil of ignorance, indicating that we should develop the rules without knowing which position in society we would occupy, as a wealth one or a person in the world's poor regions.

To ensure the fairer original position, Rawls proposes a 'reflective equilibrium,' a process that goes back and forth and includes all participants to define the rules until we reach the best original position; nevertheless, as the number of participants increases, it also increases the challenge of reaching an agreement of the original position. There is a need to deal with reasonable or rational participants or at least have rational representatives to develop the original position, which may not be valid with humans with bounded rationality (SIMON, 1996). To not mention that in some theories, a rational agent would act to maximize its benefits, notwithstanding that self-interest is not realistic since individuals may also act to favor groups (OLSON, 2002).

It is worth mentioning that this contractarianism view has influenced several authors and theories, including the theory of the firm (COASE, 1937) that looks to reduce the number of contracts in search for efficacy, the contract theory (ALCHIAN; DEMSETZ, 1972) that explores the moral hazard of single and multiple agents, the transaction-cost economics (WILLIAMSON, 1979) where the decision explore which contracts should be made, and even the stakeholder theory (FREEMAN; DAVID, 1983) explores the need to include the perspective of other groups whose support can cease the corporation existence, with more information about stakeholders, better contract could be written.

The problem is that contracts are incomplete and can result in outcomes that are inferior from an economic perspective (GROSSMAN; HART, 1986; HART; MOORE, 1999), and just because there is a contract that everyone signed does not mean it is fair, at least from a social perspective (RAWLS, 2004), since there are externalities that can create a social cost (COASE, 1960). How do we solve these issues?

The deontological perspective of justice states that there is right and wrong no matter the consequences. For Jeremy Bentham (1843), right and wrong are related to evaluating the greatest happiness of the greatest number, and Mills (1859) complements the utilitarian view, adding that everyone is free to do whatever they want, except to harm others. Kant (2017) calls it a categorical imperative, where there is a universal law that each one can abide by and follow. Nevertheless, Aristotle (2015) understands that distributive justice will discriminate, and we should question which discriminations are fair. While the deontological view of justice can solve the contractarianism problem it creates new ones, such as, what is the right and wrong?

In summary, the different perspectives on justice are mainly related to a contractarianism view, in which a contract will develop a set of rules and laws that everyone can agree with (RAWLS, 1971; SCANLON, 1998) or a set of universal principles (ARISTÓTELES, 2015; KANT, 2017). The contractarianism perspective needs a process to reach a consensus, in which Rawls (1971) suggests the original position and the 'reflective equilibrium,' while in the universal perspective, Kant (2017) suggests the categorical imperative and Sen (2009) suggests the capability to reach well-being. This last perspective is what we need further discussion.

First, we raised two questions: a) Do we need to use a justice approach that deals with distributive justice? Moreover, if not, b) Is there a categorical imperative anyone would agree?

Nozick (1991) tries to divide distributive justice in acquisition and transfer, indicating that if the origins of wealth are legitimate, the justice in acquisition and the transfer are met. However, evaluating this legitimation in a society governed by power relations is not always possible. Liberalism is another justice approach that tries to escape from distributive justice, and any laws that interfere in the free market violate individual liberty (FRIEDMAN, 2002); however, the free market may not be as free as some argue, especially for people with few alternatives (SANDEL, 2020). Aristotle (2015) understands that justice is about giving people what they deserve, but the most enlightened are the ones who will decide what each one deserves.

However, a more modern perspective is approached by Amartya Sen (2009), in which justice is about the freedom people have or the capability to do various things that a person may value doing and being. “[A] a capability is the power to do something, the accountability that emanates from that ability [...]” (SEN, 2009, p. 19).

Capabilities are what people can do or be if they choose. Any obstacle that denies the capacity of someone to achieve their well-being is a limitation of capability and, in consequence, is an unfair situation (SEN, 2009).

Related to capabilities is Rawls’ concept of opportunities, which is discussed by Sen (2009). First, Rawls (2005) has two principles in its justice as fairness: a) equal rights for equal fundamental liberties, and b) economic inequalities can exist, but only in conditions of fair equality of opportunities and greatest benefit of the least disadvantaged. However, Sen criticizes these principles (2009) first because equal, from a distributive perspective, may be insufficient since a baby needs more aid than an adult person, and a wheelchair person will need more resources from public transport to go from one place to another. Second, the mere existence of opportunities does not mean the real freedom to achieve them equally.

In other words, the relevant distinction related to opportunity and capability (SEN, 2009) is that the former implies that opportunities are spread around the world, such as going to a University, and the latter argues that just because a University exists, do not mean that a person is capable of going to the University. The capability concept differentiates Sen’s justice theory from liberalism, primarily because to deal with the lack of capabilities, some “freedoms” will need to be limited or stripped, such as the freedom to pollute, which can affect the freedom to live a longer life or the freedom of other species (NUSSBAUM, 2003).

The criticism around Sen’s capabilities concept is, which capabilities should be considered? Furthermore, which capabilities could we consider deontological and be accepted by anyone?

Martha Nussbaum (1993) did this work for us and listed ten capabilities, including the capability of 1) life; 2) bodily health; 3) bodily integrity; 4) senses, imagination, and thought; 5) emotions; 6) practical reason; 7) affiliation; 8) other species; 9) play; and 10) control over one’s environment.

Capabilities deal with individuals and preserve pluralism; they protect anyone from others seeking to limit or deny freedoms. One of these capabilities is control over one’s environment, which includes “having the right to seek employment on an equal basis with others” (NUSSBAUM, 2003, p. 42). Martha Nussbaum left these capabilities open for

improvement for several reasons, including the need to consider pluralism, different political spectrums, and cultures. At the same time, she is concerned that the broad concept of freedom and the lack of refinement of capabilities may lead us back to the contractarianism concept. For example, if a culture considers enslaving people as freedom, just as Aristotle believed, slavery should be allowed. For this reason, more refinement of each capability as principles are needed.

Another concept that the capability approach proposed by Sen (2009) brings is related to responsibilities. First, freedom to choose comes with the responsibility for what we do, and second, responsibility is related to the choice made and the outcome achieved. Since the capability is the power to do something or deny that something is done, the accountability for this power is part of the capability.

With this last theoretical background, we can move forward to the development of our thesis, but none without answering the two questions we formulate in this section: first, we do not need to use distributive justice in a justice approach, and second, capability is the categorical imperative or principle, we should use in our justice approach.

In the next section, we explore value.

## **2.4 Value**

Value is a central concept in management and organizational literature in micro and macrolevel research. The multidisciplinary of the management field, the confusion between the content and the process of value creation, and the confusion between value creation and value capture, create little consensus about what value creation is and how it can be created (LEPAK; SMITH; TAYLOR, 2007). Added to the opportunities of multilevel analysis, like firms, networks, and ecosystems, the complexity and relevance of value creation and capture increases.

Value can be conceptualized as the consumer's willingness to pay or the benefit which it experiences for some product, service, or reward. These benefits may include intrinsic, prosocial, nonpecuniary extrinsic, and pecuniary extrinsic rewards (CHESBROUGH; LETTL; RITTER, 2018).

Value may be created when the resource is used or when the resources are exchanged (BOWMAN; AMBROSINI, 2000). Chesbrough, Lettl and Ritter (2018) argue that in innovation the value is created after going through all the innovation process - inventing, developing, producing, and delivering the innovation to the market – this is the value-in-use.

Value-in-exchange is evaluated as a perception of the potential usefulness of the resources that were exchanged (CHESBROUGH; LETTL; RITTER, 2018). Value-in-exchange is relevant because it may guide the decision process to cooperate with other actors, before being capable of really capture the value created. The failure to access or use the promised resources, may let the actor with a negative value.

Both concepts are extremely important in ecosystems, actors that enter the ecosystem with the promise of value-in-exchange but do not receive value-in-use, may not be able to capture part of the value that has being created, and in consequence will not trust the partners and may leave the ecosystem.

Although there are different concepts of value and value may represent a subjective construct, meaning a construct that do not follow a pattern, we adopt different perspectives to evaluate which one better suits our context.

The first approach of value is related to outcomes in relation to input that is explored in the distributive justice literature (ADAMS, 1963; COLQUITT *et al.*, 2001). The second is the Sen's (2009) notion of value were people are capable of defining what have value for them, which include the a capability or the power to do something, but also the notion that control its own environment proposed by Nussbaum (2003) is value for human beings.

In the next section, we explore governance in a broad sense.

## **2.5 Governance**

The following section results from the systematic literature review (SLR) on governance. The papers that present some models that can relate to our JBG model are presented on APPENDIX C – GOVERNANCE SYSTEMATIC LITERATURE REVIEW, where the findings are also descriptively presented to bring the different definitions of governance and its variables.

We try to fit the governance elements found in the SLR under the justice dimensions in Table 18 (see APPENDIX C – GOVERNANCE SYSTEMATIC LITERATURE REVIEW). However, it is important to note that just because the governance dimensions of the articles reviewed fit under a common category of a justice governance approach does not mean they ask the most relevant questions. Is the distributive, procedural, interactional, and informational principles, mechanisms, or actions fair from the point of view of the participants? Are these elements impacting the participants' behavior in a degraded way – generating adverse outcomes for other participants and organizations?

First, governance is the set of rules used in different contexts and by different actors to incentivize some and discourage other behaviors. Governance can be shared, giving actors involved with the practice and work environment the authority and control of the decision-making process (O'MAY; BUCHAN, 1999), or more centralized, where some mechanisms or processes are imposed over others to control their behavior (CARCELLO; HERMANSON; YE, 2011). Governance can be composed of principles, processes, roles, responsibilities, and policies (AL-RUITHE; BENKHELIFA; HAMEED, 2018), all of them or one of them. Governance can be formal or informal (LI; TERJESEN; UMANS, 2020).

Governance is essential in several areas, including corporations (HARRIS, 2009), the environmental issues (HUITEMA *et al.*, 2009), health (WOLFE *et al.*, 2017), food (CANDEL, 2014), governments (MISURACA; VISCUSI, 2015), for cities (RUHLANDT, 2018), transportation (MARSDEN; REARDON, 2017), ports (ZHANG *et al.*, 2018), projects (LAPPI *et al.*, 2018), education (VERGER; FONTDEVILA; PARCERISA, 2019), and inter-organizational relations (ROEHRICH *et al.*, 2020) (see APPENDIX C – GOVERNANCE SYSTEMATIC LITERATURE REVIEW for a detailed view).

From the 98 papers analyzed in the SLR, we found 71 papers (72%) exploring one or more governance models. Then, we evaluate the constructs and variables used in each model to fit these elements within the four dimensions of our JBG model. The results showed that 26 papers (37%) presented 35 constructs related to distribution, 71 papers (100%) presented 203 constructs related to procedures, eight papers (11%) presented eight constructs related to interactions, and 33 papers (46%) presented 37 constructs related to information. However, when we take a closer look at governance models that approach equity (\*equit\*), fairness (\*fair\*), justice (\*just\*), or distribution (\*distrib\*), only seven papers (10%) do it on distributive justice, four papers (6%) do it on procedural justice, one paper (1%) do it on interactional justice, and one paper (1%) do it on informational justice.

Important to note that most articles establish that governance must in some level or another involve all stakeholders impacted by the governance process or outcomes, even corporate governance models that in general are more centralized ones (BENDELL; MILLER; WORTMANN, 2011; BOLÍVAR; MEIJER, 2016; BORRIE; GALE; BOSAK, 2022; CORFEE-MORLOT *et al.*, 2011; DERA KHSHAN; TURNER; MANCINI, 2019; EGER *et al.*, 2021; ERNST, 2019; FEIST; PLUMMER; BAIRD, 2020; HUITEMA *et al.*, 2009; KAPLAN *et al.*, 2013; LOFT; MANN; HANSJÜRGENS, 2015; LUPOVA-HENRY; DOTTI, 2019; MEULEMAN; NIESTROY, 2015; MISURACA; VISCUSI, 2015; MORRISON;

WESTBROOK; NOBLE, 2018; MUTIARIN *et al.*, 2019; O'MAY; BUCHAN, 1999; PARSONS; TAYLOR; CREASE, 2021; RIJKE *et al.*, 2012; SAUER; HIETE, 2020; SPEER, 2012; TANGNEY *et al.*, 2021; THEES *et al.*, 2020; TOMOR *et al.*, 2019; TRIYANTI; HEGGER; DRIESSEN, 2020; VINK; DEWULF; TERMEER, 2013; WARRIER *et al.*, 2021; WOLFE *et al.*, 2017; YOO; KIM, 2021; ZULFIQAR; BUTT, 2021). However, we do not evaluate which stakeholder each governance model considers relevant, but this may indicate a shift in the governance paradigm from a centralized, top-down to a participatory, collaborative, and polycentric arrangement (POTTS, 2020).

The conclusion is that the governance process is one of the most studied constructs, and there is a lack of justice approaches to the governance topic. If governance is the set of rules that will guide behavior and justice can be used as guiding principles to create this set of rules that everyone can, at minimum, agree with, why not use justice-based approaches for governance?

One option is that governance was unpopular in the social sciences until 1995 (CHANG, 2015). Second, governance may have entered into the social science incompletely, bringing the origin of the Latin term *gubernare*, which means 'to steer' or, through the use of rules, regulate and guide relationships and behaviors (MÜLLER, 2009) without bringing the foundations of political philosophy.

The origin of governance can be traced back to Plato (1943), and the notion of govern is inseparable from the debate of justice as much as the notion of responsibility. Responsibility rests with the one who chooses, but if individuals have the capability to choose. However, at some point in time:

“The neo-liberal forms of government feature not only direct intervention by means of empowered and specialized state apparatuses, but also characteristically develop indirect techniques for leading and controlling individuals without at the same time being responsible for them.” (LEMKE, 2001, p. 12)

These new government characteristics may have permeated governance in the same way. Since a governance system does not need to debate on top of justice because it does not need to be responsible for the resulting behavior, an important part of governance, justice, was left behind. Nevertheless, a third option that may sound reasonable is that whenever we include participant actors in the process, as several governance models do in our SLR, the result is a governance system that may be fair, which may not be the case since participation does not

mean influence over the governance system. That is the same issue with contracts; just because there is a contract that all parties agree with does not mean it is fair (SANDEL, 2009).

Finally, because justice is in the political philosophy spectrum, it may sound impractical and far from governance from the standpoint of organizations, which is far from true. Still, we understand that without a clear concept and definition of what justice is for governance, it would be hard to understand why both topics, justice and governance, are inseparable. Only after these clarifications would it be possible to argue why any governance model should include one or several justice dimensions. To do so, we choose ecosystems as our context of analysis, specifically PBEs because they need a fair governance system to attract and retain participants. Otherwise, participants could leave and empty the ecosystem.

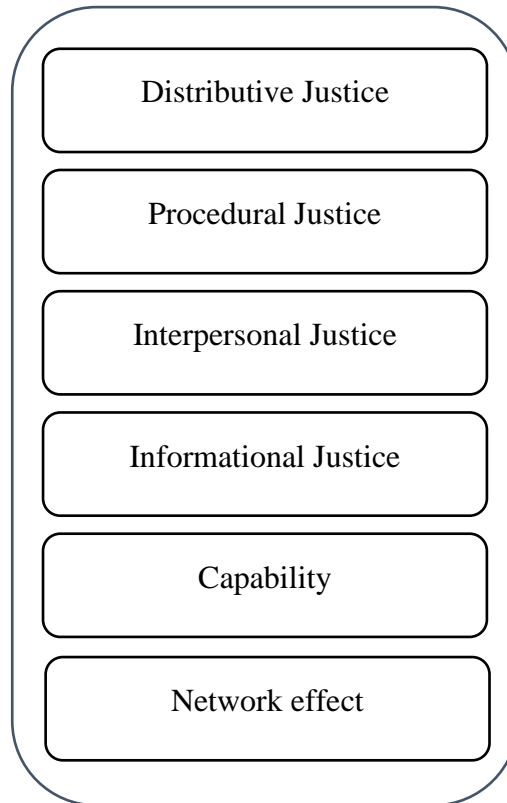
The following section presents the research framework.

## **2.6 Research Framework**

Based on the theoretical background, we developed our research framework with constructs to evaluate in Figure 2, which presents the four justice dimensions, the capability approach of justice, and the network effect as a performance proxy. In a PBE, value is created if more actors join the platform. One side will enter the platform only if the other side is present and balanced – not too much of one side – this is the chicken-egg problem (CAILLAUD; JULLIEN, 2003). Nevertheless, since entering the platform is based on an expectation of value creation and capture, participants will first evaluate the conditions to enter and perceive the network effect during or after participation. The higher network effect, meaning more participants, increases performance, more value created, and possibly more value captured due to more participants and interactions.



Figure 2 – Research framework



Source: Author (2023)

The following section presents our research method.

### 3 METHOD

This section provides all the information related to the method. The first section provides information on the multiple-case study, data collection, research model, measures, and data analysis. The literature review and systematic literature review method are provided in APPENDIX F – LITERATURE AND SYSTEMATIC LITERATURE REVIEWS.

#### 3.1 Multiple-case study

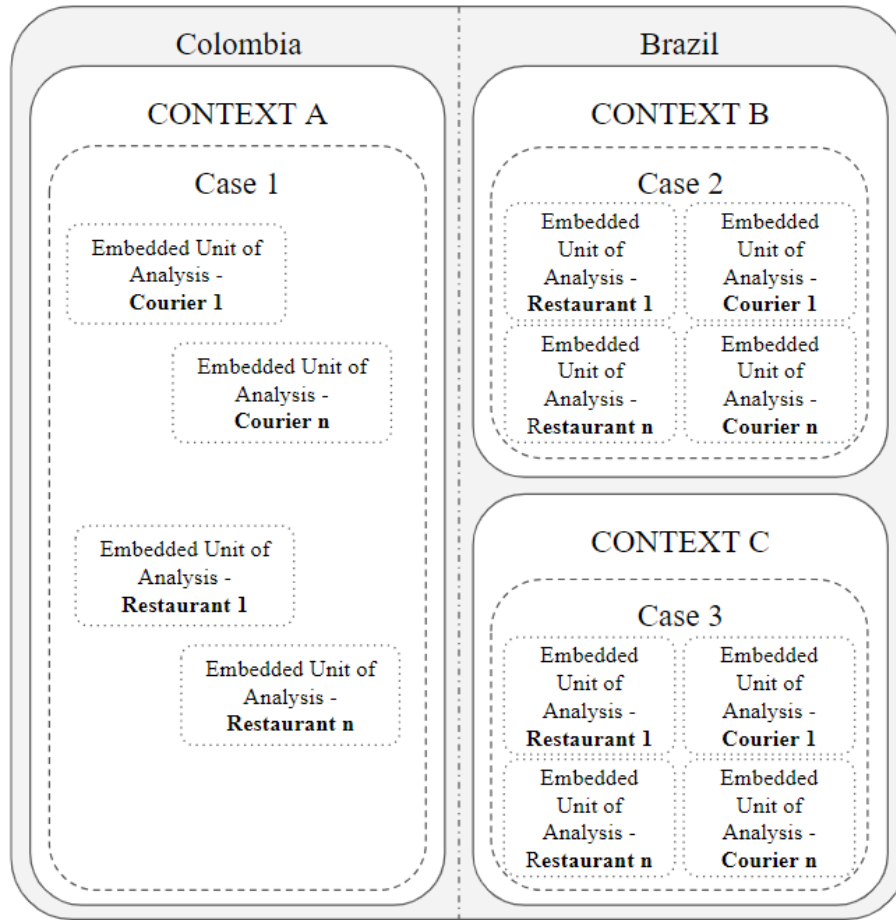
Based on our research question, **“Why do we need a justice-based governance (JBG) model for platform-based ecosystems (PBEs), and how should it be?”** and the literature review, a qualitative and deductive approach is necessary, especially the multiple-case study as the method that better suits our needs. The multiple-case study is necessary to compare the difference among governance modes adopted by platforms from the perspective of the multi-sided market. First, JBG uses four constructs, distributive, procedural, interpersonal, and informational justice, and although distinct (COLQUITT, 2001), they were never used in combination to evaluate platform governance. Therefore, evaluating how these justice dimensions can lead to higher PBE performance is essential.

We used case studies to identify and acquire familiarity with platform cases (YIN, 2018). Platforms are firms that use platforms to intermediate transactions and to innovate, developing generic or non-generic and supermodular complementarities between participants.

The research project was approved by the ethics committee under the CAAE (Certificado de Apresentação de Apreciação Ética – Certificate of Ethical Appreciation Presentation) number 61831022.2.0000.5344. The Substantiated Evaluation of the Research Ethics Committee (CEP) can be found in ANNEX A – SUBSTANTIATED EVALUATION OF THE CEP. We also provide the protocol in APPENDIX B – MULTIPLE-CASE STUDY PROTOCOL. The protocol allowed the replication of the multiple-case study design, an important aspect that assures the comparison between cases (YIN, 2018).

We conducted an embedded multiple-case study design that Yin (2018) classified as a type 4 (see Figure 3). Each case operates in the context of delivery platforms, where a central actor intermediates the connection between customers – a client that orders food through an App, restaurants – a food service that makes food for delivery, and the delivery person or courier driver – a person that transport the food from the restaurant to the customer.

Figure 3 - Multiple-case study design



Source: author (2023)

The embedded unity of analysis comprises the restaurants and the courier drivers. Context A is at Medellin, Antioquia State in Colombia, and context B is at Caxias do Sul, Rio Grande do Sul State, and C at the city of São Paulo, São Paulo State, both in Brazil. The interviewees' list, date, and duration are provided in Table 2. We code the interviewees as follows: CC means courier in Colombia, RC means restaurant in Colombia, CB means courier in Brazil, RB means restaurant in Brazil, CJ means courier in the extreme platform case in Brazil, and RJ means restaurant in the extreme platform case in Brazil.

Choosing interviewees followed different steps in Brazil, Colombia, and for AppJusto. In Colombia, we found places where couriers stay together and close to a commercial center that generally has a food court, which increases the chance of receiving a delivery call. We randomly choose couriers as they arrive at work and have time to speak without further questions. For restaurants in Colombia, we searched restaurants in the area where the leading researcher lived, mapped the ones that had delivery service using Google Maps, and visited

each one to collect data. We ask for the owner or manager without annotating if it was one or the other since we consider that the responsible would provide the relevant information at the moment.

In Caxias do Sul city, in Brazil, we used the same strategy to find places where the courier was concentrated and interviewed the ones who had the time and availability. For restaurants, we mapped the restaurants in a central area of the city using Google Maps to identify the ones that use iFood and had a WhatsApp number in Google Maps or the restaurant website. We contacted some through WhatsApp to reach the owner or manager, and two we visited to get the WhatsApp number.

For AppJusto, we contacted the CEO<sup>5</sup>, who provided the WhatsApp contact of couriers and restaurants. From the four couriers we had contacted, we interviewed three. Of the three restauranteurs, we interviewed two. We identified the other restauranteurs inside the AppJusto app<sup>6</sup> and found a WhatsApp number we could contact using Google Maps and the restaurant website. CJ2 is a female courier, and all the other couriers are male. RC1, RC2, RC8, RB2, and RJ4 are females, and the others are males. We note that people were not asked to identify their gender.

We did not interview any dark kitchens. Dark kitchens “[...] (also known as ‘cloud kitchens’ or ‘ghost kitchens’) are delivery-only commercial kitchens that rent out shared or private kitchen spaces to food businesses.” (RINALDI; D’AGUILAR; EGAN, 2022).

Table 2 - Interviewees list

#	Code	Date	Duration (minutes)	Participation
1	CC1	Jan 12 <sup>th</sup> , 2023	22:55	In-person, in the streets of Medellin
2	CC2	Jan 12 <sup>th</sup> , 2023	56:52	In-person, in the streets of Medellin
3	CC3	Jan 12 <sup>th</sup> , 2023	09:09	In-person, in the streets of Medellin
4	CC4	Jan 12 <sup>th</sup> , 2023	16:31	In-person, in the streets of Medellin
5	CC5	Jan 16 <sup>th</sup> , 2023	12:55	In-person, in the streets of Medellin
6	CC6	Jan 16 <sup>th</sup> , 2023	09:28	In-person, in the streets of Medellin
7	CC7	Jan 16 <sup>th</sup> , 2023	13:30	In-person, in the streets of Medellin
8	CC8	Jan 16 <sup>th</sup> , 2023	10:15	In-person, in the streets of Medellin
9	CC9	Jan 16 <sup>th</sup> , 2023	11:21	In-person, in the streets of Medellin
10	CC10	Jan 16 <sup>th</sup> , 2023	09:36	In-person, in the streets of Medellin
11	RC1	Jan 19 <sup>th</sup> , 2023	09:30	In-person, in the restaurant in Medellin
12	RC2	Jan 19 <sup>th</sup> , 2023	17:56	In-person, in the restaurant in Medellin
13	RC3	Jan 19 <sup>th</sup> , 2023	10:30	In-person, in the restaurant in Medellin

<sup>5</sup> Chief Executive Officer

<sup>6</sup> Application, in general a software system

14	RC4	Jan 20 <sup>th</sup> , 2023	20:03	In-person, in the restaurant in Medellin
15	RC5	Jan 23 <sup>th</sup> , 2023	05:50	In-person, in the restaurant in Medellin
16	RC6	Jan 23 <sup>th</sup> , 2023	08:38	In-person, in the restaurant in Medellin
17	RC7	Jan 23 <sup>th</sup> , 2023	10:02	In-person, in the restaurant in Medellin
18	RC8	Jan 23 <sup>th</sup> , 2023	10:20	In-person, in the restaurant in Medellin
19	RC9	Jan 23 <sup>th</sup> , 2023	19:36	In-person, in the restaurant in Medellin
20	RC10	Jan 23 <sup>th</sup> , 2023	06:45	In-person, in the restaurant in Medellin
21	CB1	May 30 <sup>th</sup> , 2023	14:11	In-person, in the streets of Caxias do Sul
22	CB2	May 30 <sup>th</sup> , 2023	17:51	In-person, in the streets of Caxias do Sul
23	CB3	May 30 <sup>th</sup> , 2023	17:50	In-person, in the streets of Caxias do Sul
24	CB4	May 30 <sup>th</sup> , 2023	13:32	In-person, in the streets of Caxias do Sul
25	CB5	May 30 <sup>th</sup> , 2023	07:30	In-person, in the streets of Caxias do Sul
26	RB1	August 9 <sup>th</sup> , 2023	21:51	Online via Google Meeting, contact via acquaintances
27	RB2	August 10 <sup>th</sup> , 2023	11:59	In-person, in the restaurant in Caxias do Sul
28	RB3	August 17 <sup>th</sup> , 2023	17:10	Online via WhatsApp, contact via visit to the restaurant
29	RB4	August 19 <sup>th</sup> , 2023	26:59	Online via Google Meeting, contact via a visit to the restaurant
30	CJ1	July 15 <sup>th</sup> , 2023	21:47	Online via Google Meeting, contact via AppJusto CEO
31	CJ2	July 16 <sup>th</sup> , 2023	40:37	Online via Google Meeting, contact via AppJusto CEO
32	CJ3	July 16 <sup>th</sup> , 2023	29:31	Online via Google Meeting, contact via AppJusto CEO
33	RJ1	July 17 <sup>th</sup> , 2023	49:50	Online via Google Meeting, contact via AppJusto CEO
34	RJ2	June 19 <sup>th</sup> , 2023	47:31	Online via Google Meeting, contact via AppJusto CEO
35	RJ3	August 1 <sup>st</sup> , 2023	43:07	Online via Google Meeting, contact via the AppJusto app
36	RJ4	August 1 <sup>st</sup> , 2023	17:51	Online via Google Meeting, contact via the AppJusto app
37	RJ5	August 4 <sup>th</sup> , 2023	23:14	Online via Google Meeting, contact via the AppJusto app
TOTAL			714:03	

Source: author (2023)

The online interviews are more prolonged than in-person. In some cases, this is justified by an interruption during the interview, while in other cases, more evidence was collected for each dimension. It was not possible to find any difference in the level of self-disclosure and formality, nor any lack of depth, and each theme emerged according to the theory predicted (SHAPKA *et al.*, 2016). All participants signed the informed consent form (see APPENDIX E – TCLE) on paper when interviews were in-person and digitally (we used the paid basic version of <https://zapsign.com.br/>) when online.

Cases 1 and 2 are the common cases and represent the two biggest platforms in Colombia and Brazil, Rappi and iFood, respectively. In the food and market delivery app industry, Rappi has a market share of 87% in Colombia (CHEVALIER, 2022), and iFood has a market share of 88,5% in Brazil (IVO, 2023). Case 3 is extreme or unusual and deviates from everyday occurrences. Cases 1 and 2 charge 23% and 26,2% over the order, respectively, while

case 3 charges 5% plus 2,42% with the financial operator, and the financial amount paid for couriers (US\$ 2,12 on July, 2023) (APPJUSTO, 2023a).

These three cases show the difference between two big PBEs in two countries. In contrast, case 3 can show the difference between a big PBE and a small one with a different value proposition, especially related to lower fees for restaurants, lower prices for consumers, and higher payment for couriers, which can illuminate our research question and provide insight to the improvement of our JBG model.

We also tried to access and collect data directly with the platforms (EISENHARDT, 1989). We contacted the directors of Rappi and iFood through LinkedIn. The Rappi directors did not respond to any message, while the iFood director replied with the channel we could contact the company. We had one online meeting with the iFood team to align the research and replied with several e-mails before and after the ethical committee approval. However, the persons did not reply to our requests about the research's next steps and did not provide any data that was not already available online that we could add to this research.

We invested US\$ 20 in an equity crowdfunding call from the AppJusto platform. When the CEO asked for help from all investors, the lead research replied and received the contact of the CEO. The CEO provided the courier contacts and some of the restaurant owner's contacts. He also provided some data from the platform.

### **3.2 Data collection**

We triangulate multiple data sources to ensure reliability and validity (EISENHARDT, 1989). The first channel is a recorded online and offline interview with platform participants. As much as possible, we focused the interviews on managers of platform firms that decided to participate or not in the platform (restaurant owners, managers, and courier drivers). According to our justice dimensions, these decision-makers have a higher chance to give us better information on why or why not participate in the platform.

The second channel is to collect secondary data. We analyzed 77 documents listed in Table 20 on APPENDIX D – PLATFORM PERFORMANCE DATA to identify platform performance data, including the number of merchants, couriers, and users, and the number of orders for each platform, iFood, Rappi, and AppJusto, and for each year since the foundation of each platform. The documents are open-access and are available online, but we can supply the documents upon request.

Based on preliminary findings throughout the research, the selection and definition of conditions and the outcome were subject to changes (SCHNEIDER; WAGEMANN, 2010). Except for the AppJusto platform, the other platforms do not provide any internal relevant information.

We started the interviews and could immediately verify that our protocol, especially the semi-structured interview guide, provided the relevant information related to the justice dimensions under evaluation. These first few cases validate our model and avoid collecting and analyzing invalid data. This process corroborates with the rationality of the theoretical model and helps to understand the measurement of the variables (WANG *et al.*, 2020a).

### 3.3 Research model

We used the theoretical model developed during the SLRs on justice and PBE as our research framework (see Figure 2).

### 3.4 Measures

For construct validity, it is essential to identify the correct operational measures for the concepts being studied (YIN, 2018). The operational measures described below encompass the justice dimensions and performance indicators.

**Distributive justice.** During an exchange, one or more individuals involved can feel that the exchange was inequitable. The perception of someone's contributions to the exchange will be referred to as *inputs* (e.g., education, intelligence, experience, training, skill, seniority, age, sex, ethnic background, social status, personal appearance or attractiveness, health, possession of an automobile, the characteristics of one's spouse, and very importantly, the effort the person expends on the exchange). It is important to note that only inputs the possessor recognizes as valuable will have relevance in the exchange (ADAMS, 1963).

The *outcomes* will reward individuals and their inputs in the exchange (e.g., payment, intrinsic rewards, seniority benefits, fringe benefits, status, knowledge, and many variations of tangible or intangible outcomes). An outcome can be an outcome if the recipient recognizes its existence, is relevant to the exchange, and has some marginal utility to the individual who receives it (ADAMS, 1963).

**Procedural justice.** The fairness of the distribution of the outcomes and the process that led to the outcomes are independent constructs. Procedural fairness was first introduced by

Thibaut and Walker (1975). Two criteria for procedural justice include “[...] process control (e.g., the ability to voice one's views and arguments during a procedure) and decision control (e.g., the ability to influence the actual outcome itself).” (COLQUITT, 2001, p. 388). To assess procedure fairness, one must compare the process one experiences against several generalizable procedural rules. These “[...] rules included consistency (e.g., the process is applied consistently across persons and time), bias suppression (e.g., decision-makers are neutral), the accuracy of information (e.g., procedures are not based on inaccurate information), correctability (e.g., appeal procedures exist for correcting bad outcomes), representation (e.g., all subgroups in the population affected by the decision are heard from), and ethicality (e.g., the process upholds personal standards of ethics and morality).” (COLQUITT, 2001, p. 388).

Participants can value procedural justice because they understand that the long-term outcomes are protected. Still, procedural justice can also influence the perception of authority legitimacy and their desire to comply with the rules and decisions of the collective (COLQUITT, 2001).

**Interactional justice.** Further development of justice dimensions led Bies and Moag (1986) to introduce interactional fairness. Interactional fairness was divided into interpersonal and interaction fairness (GREENBERG, 1990). Interpersonal measure evaluates the interpersonal treatment the individual receives during an exchange. In exchange, it is important to treat people with respect (e.g., being polite rather than rude) and propriety (e.g., refraining from improper remarks or prejudicial statements) (COLQUITT, 2001).

**Informational justice.** With Greenberg’s (1990) division of interactional fairness into interpersonal and information fairness, the last is used to evaluate the perceived adequacy of explanations. The explanations are adequate if they are reasonable, timely, and specific. Informational justice is used for justification (e.g., explaining the basis for decisions) and truthfulness (e.g., an authority figure being candid and not engaging in deception) (COLQUITT, 2001).

In Table 3, we developed justice measures following Colquitt (2001), which was a starting point for developing our research instruments since it is still a valid instrument to measure justice dimensions (IONESCU; ILIESCU, 2021). The measures below guided the development of our first research questionnaire.

Table 3 - Justice Measure Items	
	Measure item
<i>Distributive justice</i>	



The following items refer to your (outcome). To what extent:

1. Does your (outcome) reflect the effort you have put into the platform?
  2. Is your (outcome) appropriate for the work you have completed?
  3. Does your (outcome) reflect what you have contributed to the platform?
  4. Is your (outcome) justified, given your performance?
- 

*Procedural justice*

The following items refer to the procedures used to arrive at your (outcome). To what extent:

1. Have you been able to express your views and feelings during those procedures?
  2. Have you had influence over the (outcome) arrived at by those procedures?
  3. Have those procedures been applied consistently?
  4. Have those procedures been free of bias?
  5. Have those procedures been based on accurate information?
  6. Have you been able to appeal the (outcome) arrived at by those procedures?
  7. Have those procedures upheld ethical and moral standards?
- 

*Interpersonal justice*

The following items refer to (the authority figure who enacted the procedure). To what extent:

1. Has the platform owner treated you in a polite manner?
  2. Has the platform owner treated you with dignity?
  3. Has the platform owner treated you with respect?
  4. Has the platform owner refrained from improper remarks or comments?
- 

*Informational justice*

The following items refer to (the platform owner who enacted the procedure). To what extent:

1. Has the platform been candid in its communications with you?
  2. Has the platform explained the procedures thoroughly?
  3. Were the platform explanations regarding the procedures reasonable?
  4. Has the platform communicated details in a timely manner?
  5. Has the platform seemed to tailor its communications to individuals' specific needs?
- 

Source: adapted from Colquitt (2001, p. 389).

A new category that appeared during the data collection was the capability of individuals to do or be what they value. This new category came from the questions in our semi-structured interview instrument, mainly when interviewees had to explain why they participated in a platform and not in others, if worth working for the platforms, if they had the intention to leave the platform at some point, if they felt disrespected or if they felt that the platform hide something from them.

**Platform performance.** PBEs will attract participants if they create value, especially if participant outcomes are higher than inputs. Some performance indicators for PBE include installed base, transaction volume, and the ranking of PBEs compared to other PBEs, following the studies of Cennamo (2018) and Wang, Guo, Wang, and Lou (2020a).

### **3.5 Data analysis**

All the interviews were automatically transcribed using Microsoft® Word for Microsoft 365 MSO, version 2305 (build 16501.20272) 64 bits. All the interviewees' sentences used as evidence in this document were reviewed using the original audio to ensure that the automatic transcription had no errors, and when errors were identified, it was immediately corrected.

We coded the interviews according to our four justice dimensions: distributive justice, procedural justice, interactional justice, and informational justice. At the same time, we highlight categories that would give some additional insights on PBE justice, why participate in a platform, the inputs and outcomes that relate to distributive justice, if changing the actual distribution is something important for participants, if they intend to leave the platform, feeling of disrespect, and if the platform hide something from them.

The codebook was created on Microsoft® Excel® for Microsoft 365 MSO (Version 2306 Build 16.0.16529.20226) 64 bits and will be supplied by request and only for reference. Further use needs to be approved by the author. The courier's codebook has 10.531 words in English, and the restaurateurs' codebook has 18.181 words in English. The codebooks represent only the relevant information for the present analysis and not the entire length of the interviews.

## 4 FINDINGS

The findings are divided into three main parts. The first one brings some data related to the investigated delivery platforms Rappi in Colombia, iFood, and AppJusto in Brazil. Couriers, restaurants, customer user base, and number of order growth are provided. The second part presents the interview data of couriers and restaurateurs concerning the justice dimensions of our initial JBG model. The third section summarizes the findings and the behavior prediction according to equity theory.

### 4.1 Platforms

This section presents some data related to the platforms.

#### 4.1.1 Rappi

Rappi is a company founded in August 2015 by Simón Borrero, Sebastián Mejía, and Felipe Villamar in Bogotá, Colombia (RAPPI, 2023). Rappi is Colombia's lead platform and delivers several items, from food to market and even money delivery. Here, we focus on the food delivery service provided by Rappi.

At Rappi, the restaurant tax may vary; in some cases, it can reach 27% plus the VAT (Value Added Tax), which also varies from 10% up to 30%, and an interbank fee of 2,9%. In Brazil, the tax is 27% (RAPPI, 2021a). Figure 4 shows some requirements for restaurants to subscribe to Rappi in Colombia.

Figure 4 - Rappi Colombia restaurant taxes

### **Requisitos para inscribirse en Rappi Restaurantes Colombia:**

Ingresa a nuestra plataforma de Rappi Restaurantes y registra los datos de tu negocio, a continuación, te dejamos la [documentación requerida](#) para hacer parte de nuestra familia restaurantera. Si tienes alguna duda, nuestros asesores te darán el soporte que requieras para que puedas hacer tu registro de una manera más rápida y sencilla.

- Persona Natural: RUT y Documento de Identidad
- Persona Jurídica: RUT, Certificado de Existencia y Representación Legal, Documento de Identidad representante legal
- El índice/ tasa de utilización para Colombia es del 23%

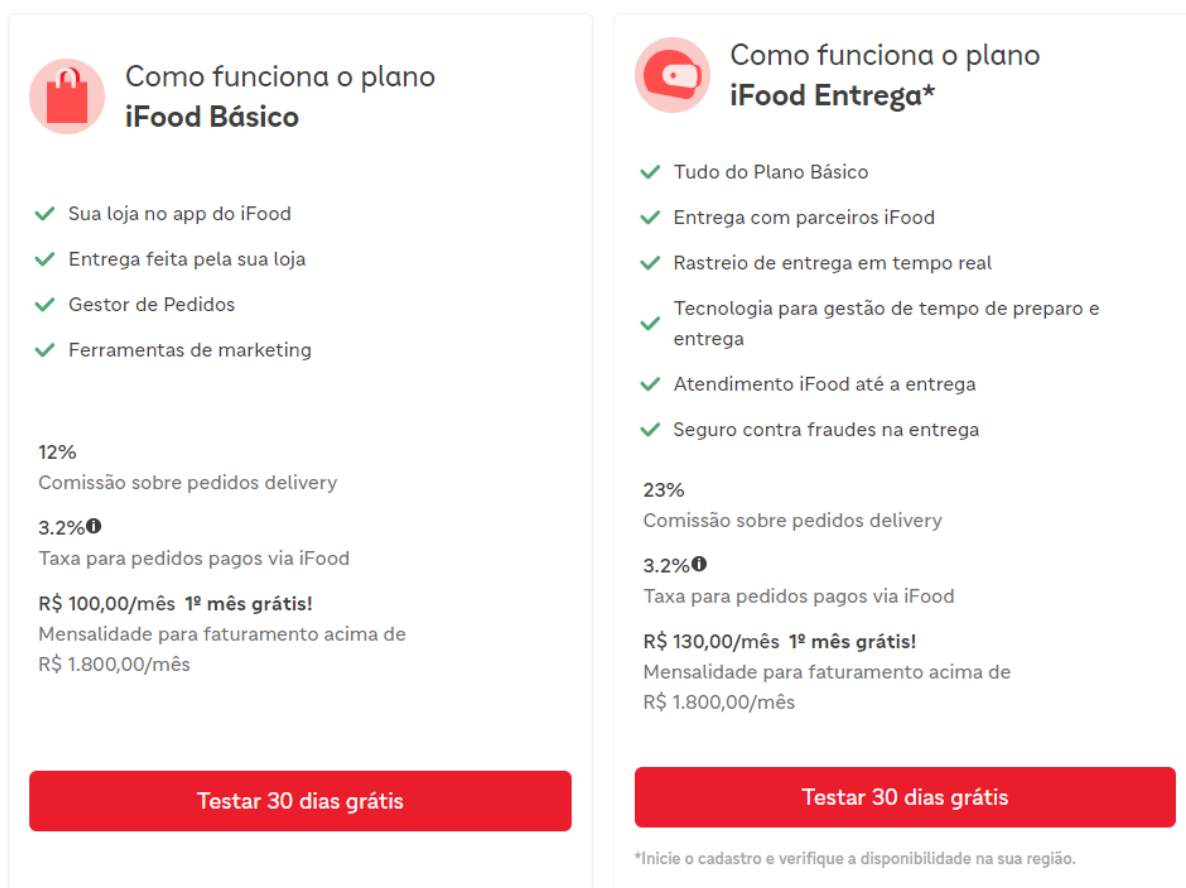
Source: (RAPPI, 2021b)

#### 4.1.2 iFood

iFood is the leading food delivery platform in Brazil. Since its foundation in 2011, the company has undergone several investment rounds. In this study, we focus on the food delivery services provided by the platform.

iFood has a basic plan that does not have delivery, which may not be attractive for restaurants since one of the reasons to use delivery platforms is to avoid developing its logistics. With the delivery option, there is a 23% fee plus the 3,2% to use the iFood payment system and a monthly fee of BRL 130 [USD 26] if the restaurant has a monthly revenue above BRL 1800 [USD 365], but it is not clear if this revenue is through the platform or restaurant's total revenue. Figure 5 shows the basic and advanced plan for restaurants on iFood.

Figure 5 - iFood restaurant taxes



Source: (IFOOD, 2023)

It was possible to find that in 2011, when iFood started, the fee was 10% charged from the restaurant (MARINELLI, 2011); in 2014, they raised to 12% (LOPES, 2014), and in 2023 26,2% (IFOOD, 2023). The percentage increase may indicate a domination of the market. Throughout its existence, iFood used a strategy of acquiring several competitors and dominating the market, such as the merger with RestauranteWeb in 2014, acquisition of

SpoonRocket in 2016, acquisition of Devorando in 2016 (source: <https://www.baguete.com.br/noticias/12/02/2016/devorando-e-comprada-pela-ifood>), acquisition of PedidosJá and integral acquisition of Rappido in 2018, acquisition of eComanda and SiteMercado in 2020 (WIKIPÉDIA, 2023), among others.

#### 4.1.3 AppJusto

AppJusto is a newcomer platform in the food delivery market founded in 2021. It went through the biggest equity crowdfunding round in 2022 related to the number of investors, raising BRL 1,86 million [USD 0,39] from 938 investors (KRIA, 2022). AppJusto is focused on attending the São Paulo city market, and the central idea behind the AppJusto business is to provide a fair value for each PBE participant. They pay the highest wage for couriers of BRL 10 [USD 2,11] up to 5 kilometers and BRL 2 [USD 0,42] for each extra km. AppJusto has a lower fee for restaurants of 5% for the logistic operation and an additional 2,42% if the financial operator is needed. The result is that restaurants can charge less for the plate compared to competitors, and the consumer pays less for the meal. Figure 6 presents the remuneration, fees, and benefits for couriers, restaurants, and customers.

Figure 6 - Remuneration and tax for AppJusto

**O AppJusto é melhor para todos**

Entregadores	Restaurantes	Consumidores
<ul style="list-style-type: none"> <li>Remuneração na frota AppJusto: R\$ 10 até 5km e mais R\$ 2 por km adicional</li> <li>Autonomia de definir preço e condições próprias no nosso sistema de frotas</li> <li>Sem suspensões automáticas: o processo sempre passa por um atendente</li> </ul>	<ul style="list-style-type: none"> <li>Comissão de 5% no modelo com operação logística + 2,42% da operadora financeira. <a href="#">Calcule seus ganhos agora mesmo!</a></li> <li>Exibição igualitária do seu restaurante por ordem de distância do cliente</li> <li>Transparência em todas as regras</li> </ul>	<ul style="list-style-type: none"> <li>Preços dos pratos até 20% mais baratos do que em outros apps</li> <li>Entregas de encomendas até 25% mais baratas</li> <li>Consumir delivery de maneira socialmente responsável e mais sustentável</li> </ul>
<b>Cadastre-se como entregador/a</b>	<b>Cadastre seu restaurante</b>	<b>Baixe o App e faça um pedido</b>

Source: (APPJUSTO, 2023a)

#### 4.1.4 Platform performance

Platforms create value on top of the network effect, where more participants and interactions create value for everyone (PARKER *et al.*, 2017). The number of participants and

interactions are two of the most critical metrics for platforms. If more participants enter the platform, interactions increase (CENNAMO, 2018).

The data about the number of couriers, merchants, users, and orders are provided below. We used a z-score– standard score  $((X - \mu)/\sigma)$  – to normalize the data, anonymize the data, avoid scale bias, and provide a better data visualization (HAIR *et al.*, 2010). Data from Rappi and iFood were collected online using several documents, especially websites. When the data was unavailable, an estimation was calculated, and all the sources were provided in APPENDIX D – PLATFORM PERFORMANCE DATA. AppJusto provided the data, which is up to date until July 2023.

Figure 7 shows the couriers' z-score and indicates the growth of couriers over the years. Figure 8 shows the total number of merchants, including restaurants, inside the platforms. Figure 9 presents the number of users, here defined as customers ordering products through the platform. These three participants, couriers, merchants, and users, showed a growth tendency in all three platforms. Finally, Figure 10 shows the number of orders in the platform by year, indicating a growing tendency. It is important to note that AppJusto presents orders only up to July 2023, while the number of orders for iFood and Rappi is an estimation for the entire year.

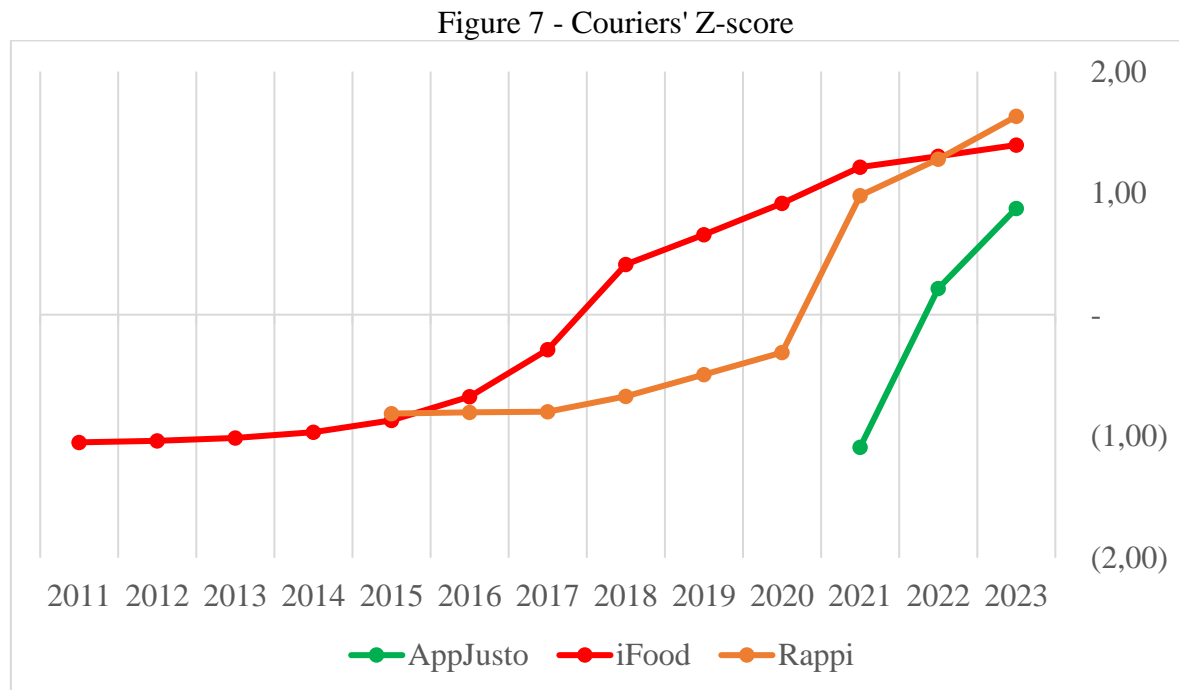
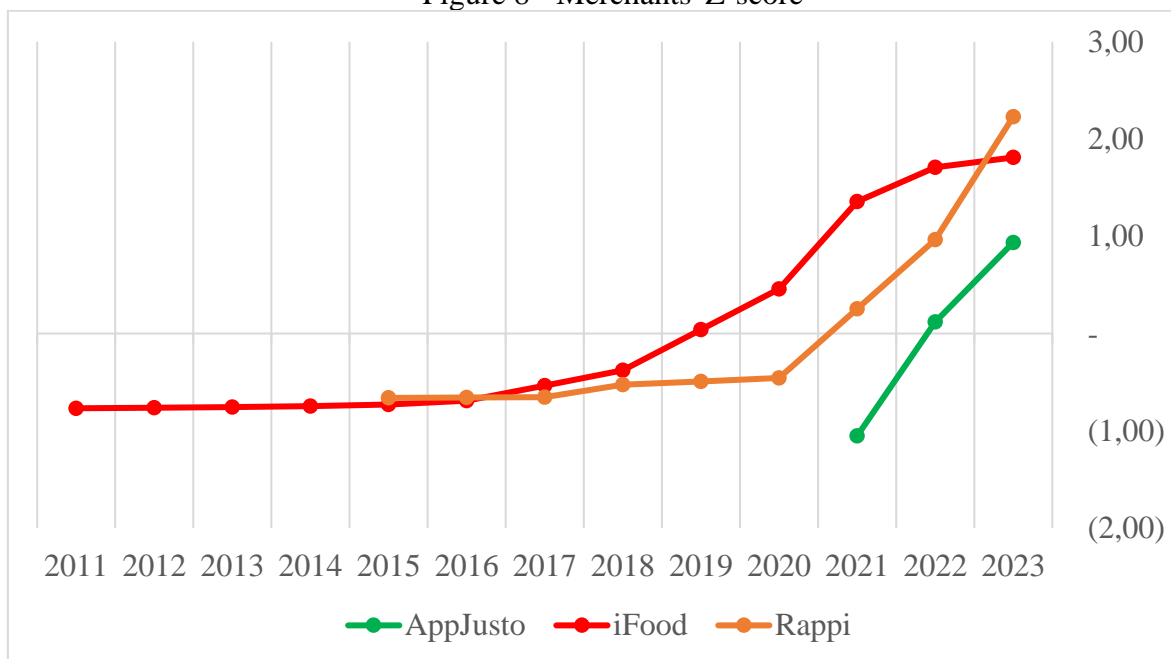
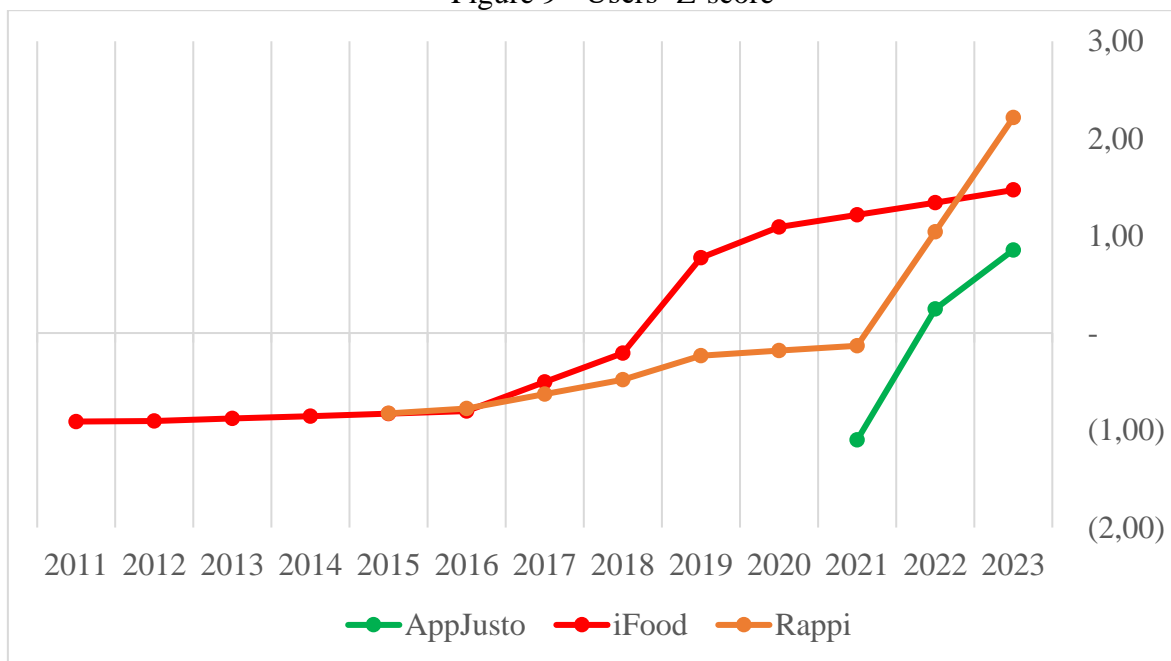


Figure 8 - Merchants' Z-score



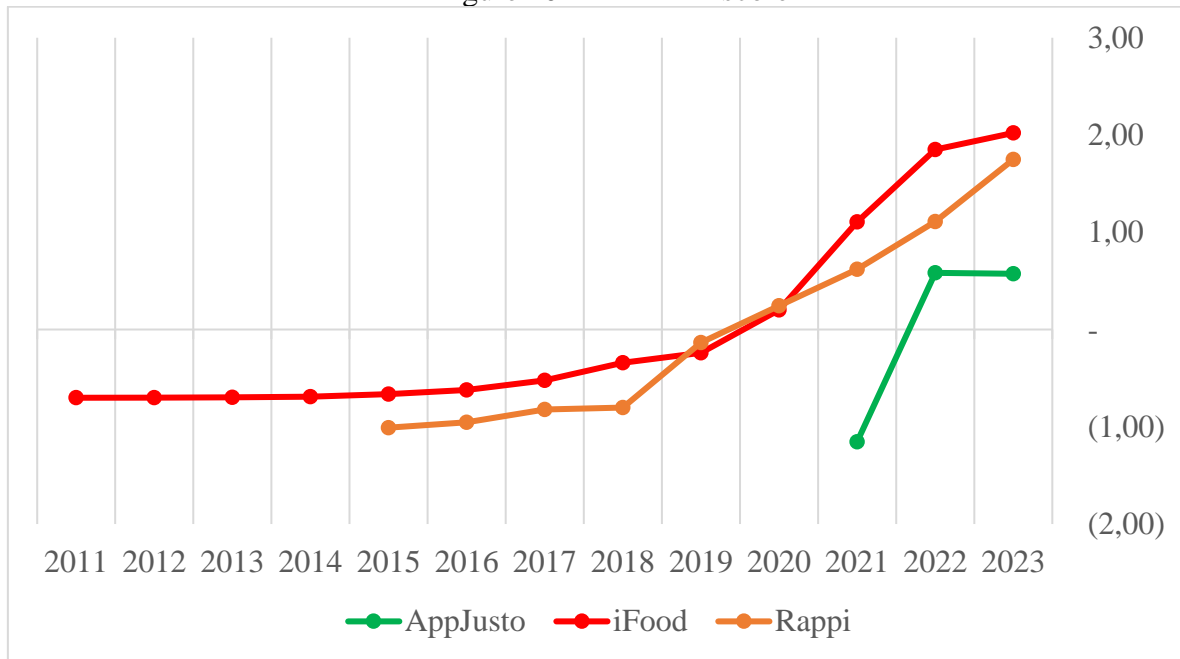
Source: Author (2023)

Figure 9 - Users' Z-score



Source: Author (2023)

Figure 10 - Orders' Z-score



Source: Author (2023)

The performance data show that AppJusto is growing above iFood and competing with Rappi, which since 2015, is expanding its operations across LATAM countries. In January 2016, Rappi entered Mexico City; in October 2016, they entered São Paulo; in February 2018, they entered Buenos Aires; in July, they entered Santiago, Chile; in September, they entered Montevideo; in November, they entered Lima, Peru (ATKINS, 2019). This expansion helped the company to grow its couriers, merchants, user base, and orders.

AppJusto shows that it is possible to compete with these companies using a fair strategy. Although we may not provide a direct causality effect between the fair governance strategy and performance, it indicates that the tweaks in value distribution among the platform's participant actors may influence organizational performance. The network effect plays a significant role in performance since, without the volume to trigger a network effect, the AppJusto platform may still face medium- and long-term challenges to grow in the platform's delivery market. In other words, it does not have sufficient participants and interactions that create enough value to foster participants' willingness to stay on the platform.

Finally, the Fairwork project (2023b) developed a report that compares the rating of several platforms around the world based on some principles, including fair pay (decent income based on costs), fair conditions (protect workers from risks), fair contracts (transparency and avoid unreasonable clauses), fair management (ability to appeal and transparency of the



processes), and fair representation (communication). The results of the Fairwork project are presented in Figure 11 for Brazil and in Figure 12 for Colombia.

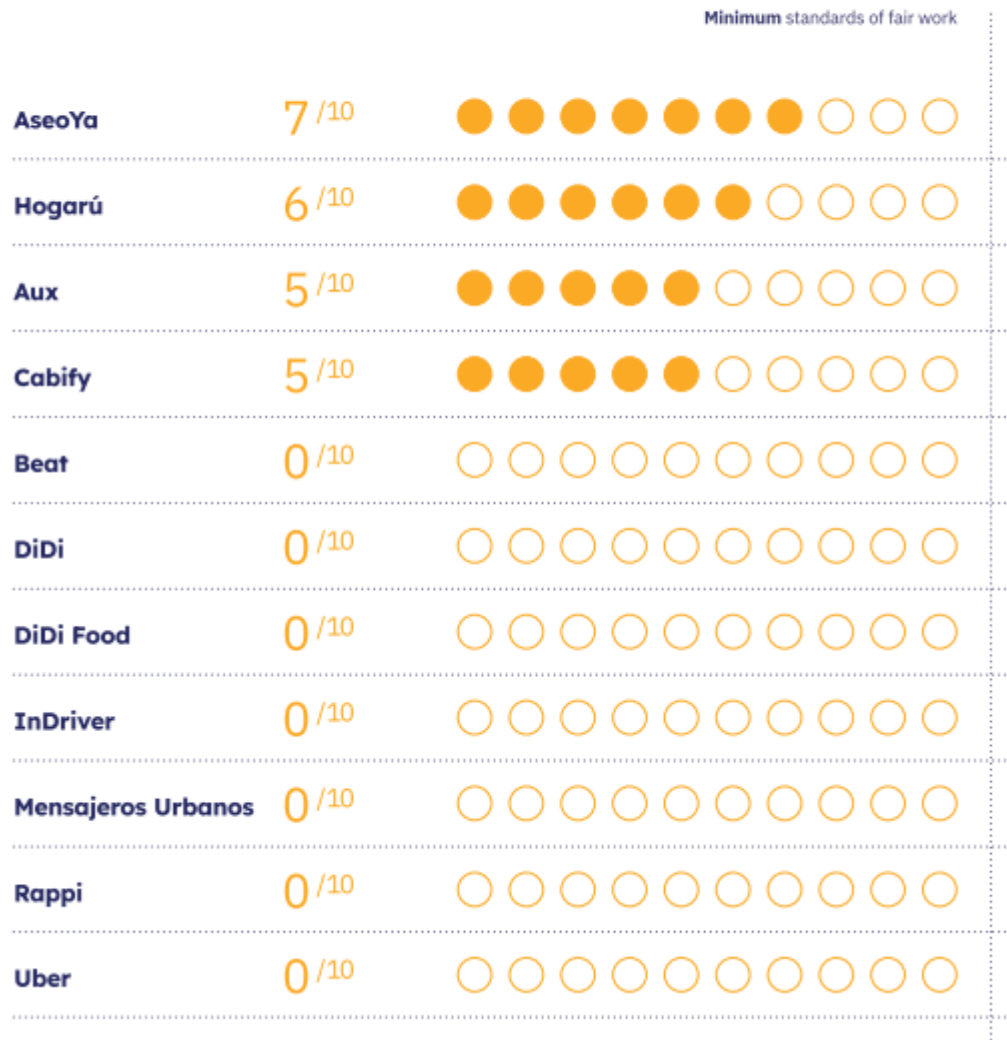
Figure 11 - Fairwork Brazil Scores 2023



Source: (FAIRWORK, 2023b)

Figure 12 - Fairwork Colombia Scores 2022

# Fairwork Colombia Scores 2022



Source: (FAIRWORK, 2023a)

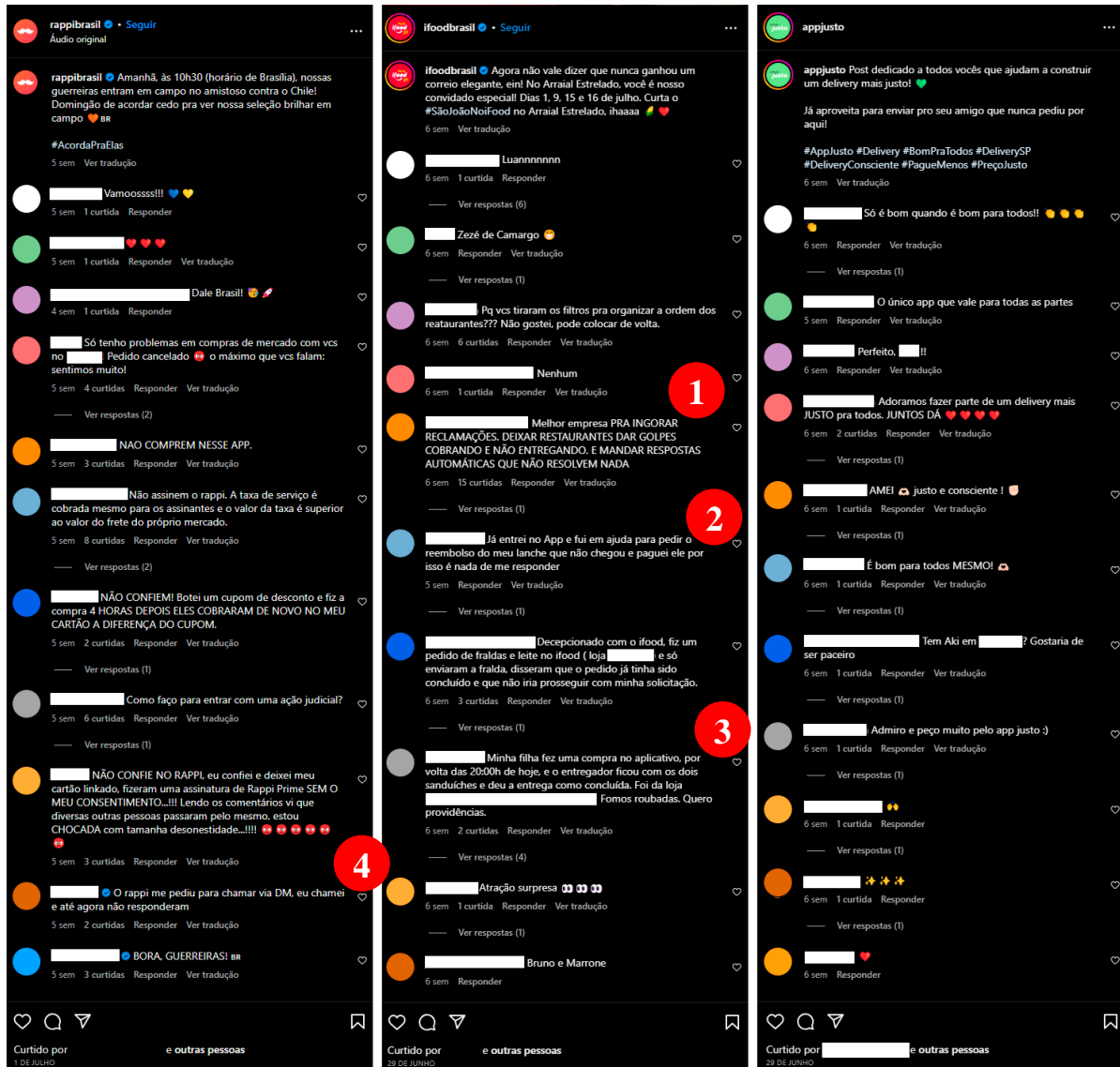
In Brazil, the platform that scored higher is AppJusto, and as we stated, it is the extreme case. In Colombia, our interviewees cited Rappi, UberEats, Didi Food, and Mensajeros Urbanos, which means that the highest scoring platforms are going through the same issue as AppJusto in Brazil, with the low volume of deliveries, couriers and restaurants are not interested in used, or the platforms are not able to deliver value due to the lack of network effect.

## 4.1.5 Customer perception

Our research does not aim to investigate the customer as a primary source of information. However, social media can help with triangulation and data that reinforce the couriers' and restaurateurs' perceptions.

Figure 13 shows that customers have issues with platforms. They cancel orders but do not receive the reimbursement (e.g., “Best company to ignore complaints, let the restaurant scam you, charging and not delivering. And send automatic responses that do not solve anything.” item 1, and “Already entered in the App and went to help to ask for reimbursement of my food that does not arrive and paid, and no answers received.” item 2), which is interesting because restaurants complain that do not receive payments on cancellations. Couriers do not receive the canceled delivery. The perception that couriers steal the food (e.g., “My daughter did a shop on application around 8 pm from today, and the courier took both sandwiches and concluded the delivery on the App. We were stolen, want solutions.” item 3), and the customer support is terrible, are present (e.g., “Rappi ask me to contact via DM, I call and until now nobody answered.” item 4).

Figure 13 - Platform's Instagram comparison



Source: Author (2023).

## 4.2 Interviews

This section presents the main findings of the interviews related to our justice constructs.

### 4.2.1 Distributive justice

Straightforwardly, couriers participate in a delivery platform because there are no similar options in the job market. On the one hand, there is no job; on the other, no job offers the same outcomes concerning the necessary inputs. The input for couriers includes their hours of work and the related equipment to do the job, including the motorcycle, mobile phone, bag for food, gas, oil, tires, and the inability to work in case of an accident. The outcome is a better-

paid salary than other jobs in the market and flexible working time related to formal jobs with fixed working hours. However, the second outcome may be more of a perception than a reality since most of the couriers said it is important to arrive early and follow a strict schedule to reach higher gains.

Couriers can use as many platforms as they want, and the ones that use AppJusto believe the platform is fair on their delivery payment. However, as a new platform, there are few restaurants and customers, which reduces the number of deliveries and, consequently, the total gain at the end of the day. Except for AppJusto, which pays couriers better, there is no apparent difference in distributive justice concerning Colombia and Brazil. Evidence is presented in Table 4.

Table 4 - Evidence of distributive justice for couriers

Description	Evidence
No similar options	“For the need of the moment. There is nothing permanent [job].” (CC8)
No job alternative	“I had a job that paid my salary, everything my insurance, but obviously I think it was because of the situation the country is going through, that my boss told me that we were ending the contract on the 30th because he couldn't pay me for the contract.” (CC4)
Hour of work input	“Ten hours, 12 hours of effort. Before, generally 6 hours a day to get a salary, but now, as with so many couriers and little demand for orders, the situation is that the application has become more restricted, it has been more decadent.” (CC6)
Equipment input	“[The platform help with] Nothing because we have to [have], if I want to work with Rappi, you have to look for the cell phone, the motorcycles, the bicycles, everything.” (CC5)
Accident	“A little insecure, depending on where you go, because there are a lot of bandits on the street. Sometimes if it's raining very heavily there is flooding, [traffic signs] broken. So you are insecure about wanting to go a little faster, but there is promotion and [at the same time] the fear of an accident as well. Because everything depends on us, security depends on us.” (CJ3)
Better salary	“[I only work at iFood] because there is not much income if you go to a company, if you stop to analyze what you earn out here, if you go to see the net [...] you still earn more. If you are going to do a salary calculation, which you take 30 days to receive, you earn around R\$ 55 [US\$ 11.58] per day. At iFood you can get R\$ 200 [US\$ 42.11], R\$ 190 [US\$ 40]. Gives much more in the day, right.” (CB2)
Flexibility	“The company demands a lot of time from a person. Previously I worked in a company that had me subjected to 12 hours [of working day]. And practically the whole week, it didn't release me, it was

	only once a week. So, with Rappi, at least one can work their time. It has a little more freedom for us too.” (CC10)
Strict schedule	“It has to have [...] a focus. You can't work today, one day a week, and want to make a profit out of it. You have to deliver every day, stick to a schedule with yourself. [...] Because it [the platform] perceives the time you use it, the time you're working with them, everything is stored with them. So if I work today and the rest of the week, the platform will provide me with as many deliveries as I work. For example, if I work today and not for the rest of the week, it will not offer more deliveries than those who work all week. It is pretty fair with that requirement.” (CB3)
Use several Apps	“[...] and I do iFood, which is what plays the most [have more deliveries], but if an AppJusto order plays, and I see that I can go, [...], I'll prioritize it.” (CJ3)
AppJusto payment	“AppJusto is an application that I give full priority. I'm always online with him and he pays a fairer, more affordable rate. And it also helps stores to have good communication between the customer and the restaurant, and with the delivery person. They do not charge fees on the delivery fee and on the percentage charged to the restaurant. So it's a very neutral [platform], very accessible to everyone and that's great, you do a job knowing that your work is having a good result, whether it's a little or a lot, it's always having [results].” (CJ1)
AppJusto volume	“I already know that there won't be much delivery [at AppJusto].” (CJ2)

Source: Author (2023)

Distributive justice is the most evident dimension in our research and evaluates the relation between input and outcomes of platform participants. Couriers will choose higher payments than other job opportunities and try to maintain flexibility. Getting out of the platform is generally conditioned to better salaries. The use of several platforms simultaneously, including WhatsApp, to create more opportunities shows that couriers look for better opportunities to increase outcomes without compromising flexibility or freedom. Some of them perceive the study as a way of getting out of the platform (e.g., “I, for example, now managed to enroll in the EJA [education for young people and adults], I'm going to finish my studies.” CB2).

AppJusto is one of the options to increase outcomes and reduce input, but it is conditioned to order volume. A fair distributive platform option is welcome, but volume is critical to sustaining couriers at the fairer platform.

For restaurants, they perceive platforms as an expensive marketing strategy. The workload to maintain the platform up to date is relatively small. However, the cost to sell

through the platform is high, including the fee for sales, promotions, and free delivery. The outcomes of this investment may lead to the attraction of new customers to the restaurant in person, reaching people at far distances. The platform is a necessary option that restaurants need to offer to customers, and there is no need to invest in their advertising and no need to have their courier fleet.

AppJusto has lower costs but limited reach concerning customers. Although most restaurants perceive that it is a fair value distribution, the lower volume of deliveries does not help with the marketing strategy of the restaurants. Evidence is presented in Table 5.

Table 5 - Evidence of distributive justice for restaurants

Description	Evidence
High cost	“We say that the cost is high to maintain an iFood, maintain exclusivity, but [...] we [the partners] realize that it is not an expense, that it is an investment. [...] It is an investment that pays for itself, mainly for the media it brings, you are always in the visibility of the portal itself, and whether you like it or not, iFood is the most talked about nowadays.” (RB1)
Workload	“Well, the truth is, I don't see it as much [work to manage the platform], because the platforms place the couriers, they place the advertising, they give the discount, what the commissions pay them. It is somewhat more effective because the [client's] enters through the platform.” (RC4)
Customer attraction	“In the Marketplace [the platforms], with them we have a different strategy. Because the Marketplace is only for people to get to know us. Because for them we have such high rates that they take us as commission, plus the hassle and bad, more taxes, we must generate a different attraction strategy with them. Especially our product that is in the yellow line, which are empanadas, cakes, and sticks, so with them [we make] combos to attract people and then I can refer our own couriers so that the cost goes down. Because in reality it is very expensive, but we do it more so that people are there, see us, know that we exist, get to know us and then on the other side we do, as that part of direct attraction to our channel.” (RC2)
Reach far customers	“My effort is minimal. It's very interesting because they have a very wide coverage policy in the region, and they have policies to encourage their customer portfolio, in fact they are an intermediary, and with that I have reached an audience that I would not have been able to reach. An audience that is farther from my hamburger shop, a more selective audience that is loyal to iFood. And today they have some policies, of course I also participate with a percentage of my value, but for us it is an investment, and it becomes cheaper over time.” (RB1)

Customer delivery option	“Because people got used to it, since they want everything at home. So it totally seems unbelievable, but sales are better by platform than sometimes physically yes, and more expensive.” (RC3)
No advertise management	“It seems to us that it gives us profit. Because, as I told you, we get rid of a little advertising stress, the courier, because the order comes in and goes out, but we already know that the same platform is going to support the expense. The client returns it if it arrives cold, it is the platform that supports it.” (RC4)
No own courier fleet	“I don't have my own courier, I use iFood exclusivity. [...] It is our strategic management. We know how uncomfortable it is to deal with couriers, hiring an employee exclusively [for delivery] and the risks inherent in this hiring.” (RB1)

Source: Author (2023)

Restaurants can use more than one platform at a time, although the exclusivity in Brazil specifies that iFood will not be able to close exclusivity contracts with chains that have 30 or more restaurants (REVISTA CONSULTOR JURÍDICO, 2023). While this agreement is a first step, it has limitations and can avoid fair competition in the platform market of small and local restaurants. On the other hand, restaurants perceive advertisement as a relevant outcome, which cannot be provided by small platforms, such as AppJusto, that do not have the reach of the big ones, such as iFood and Rappi.

AppJusto can attract restaurants that are dissatisfied with iFood or do not have a high percentage of revenue coming from the platforms. From a distributive justice perspective, big platforms have more outcomes to offer and, for this reason, can demand more inputs. This lock-in effect and the lack of autonomy are contrasting but strongly related network effects.

Next, we analyze the procedural justice dimension.

#### 4.2.2 Procedural justice

Couriers do not have a chance to influence the distribution except by using some strategies, including working more hours daily, choosing hours that have more deliveries, refusing deliveries that are far to pick up or deliver, and refusing calls where two orders need to be delivered in the same call. However, refusing orders may harm couriers; they may feel that platforms penalize them, blocking them for minutes, hours, or days, which means that refusing deliveries that do not pay a fair amount concerning the distance to delivery and time of delivery may not be a valid strategy to balance the value distribution.

Rappi and iFood have some scores for couriers, but most do not believe it works. Those with a higher score may or may not receive the same number of deliveries. It is unclear how the



system works and how it benefits the ones in higher rankings. AppJusto does not have a score and allows couriers to create their own fleets, which allows them to define their price and delivery terms (APPJUSTO, 2023b). Except for AppJusto, Rappi in Colombia and Brazil, and iFood in Brazil have similar procedural justice elements. Rappi is the number one platform in Colombia, and on October 21<sup>st</sup> 2022, iFood left Colombia after seven years of operation (VALINOR, 2022), which indicates that the network effect does not allow even a big player to enter a new market that already has an established PBE. Evidence is presented in Table 6.

Table 6 - Evidence of procedural justice for couriers

Description	Evidence
Working more hours	“With more working time, this is the only way [to increase profits].” (CC7)
Choose hours	“I can make from 9 am to 12 pm [to gain more], is you that choose, but it is hard. You can make R\$ 300 [US\$ 63] per day or more.” (CB1)
Refuse deliveries	“There is delivery that is not worth the guy doing. So, if the guy refuses, it [the App] doesn't play [doesn't enter deliveries] anything afterwards, stops playing [enter deliveries], weakens the application.” (CB4)
Double orders	“Then there's delivery, which is to collect two orders and take them to [two] place for the cost of just one. Then when it's like that, I don't even do it anymore, so I let it go without playing [turn-off App], I make groups [WhatsApp groups from stores that ask directly for deliveries], and I don't do these deliveries. Because then there are two deliveries, delivering one very close, about 6 km and another 10 km further on, for a value like [it's not worth it]. I don't know if this is [problem] with the app itself or if it's the restaurants that do this. Then there's no way for the guy to know, but I don't even do it when it's two collections and two deliveries.” (CB4)
Block	“[Problems] of unfair blocking, is that they block you for hours or days. That you cannot work with the platform.” (CC8)
Scores	“If you enter the application today, there will be the score, which is the basis of everything you do on the platform. The time you deliver, how many orders you delivered based on how many orders you collected, delivered. There are also customer reviews, which help a lot to raise this score. So, if you were polite with the customer, he goes there, he will evaluate it or not. But in the end, it is up to the merit of those who are delivering whether or not there will be more orders to deliver. Because that's what the platform is. The more orders, the more you earn.” (CB3)
Own fleet	“There is the possibility of making a fleet [couriers can create their own courier group with different taxes for delivery and by kilometer, and definition of distances to stores and to customers] within the application, but it is complicated, because the fleet that

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already exists, is already working, everyone is in there, and everyone is kind of in agreement.” (CJ1)

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Source: Author (2023)

Procedural justice evaluates the ability of participants to participate in the process that will define the distribution. Since procedural justice is where rules are created, these rules are what guide behavior. While platforms such as iFood and Rappi will create procedures that impose delivery time, block rules, scores, and rankings, AppJusto tried a different approach, not including restrictive rules and allowing the couriers to create their fleet and define their rules. The fleet system may not be feasible because of the same issue that may impact AppJusto, the lack of network effect, because in the fleet, the courier would need to prospect other couriers and restaurants willing to abide by their rules.

It is important to note that the procedural justice on AppJusto sounds fair from the perspective of couriers (e.g., “There is the possibility of making a fleet within the application, but it is complicated, because the fleet that already exists, is already working, everyone is in there, and everyone is kind of in agreement.” CJ1).

From the point of view of restaurateurs, they cannot influence the value distribution except by increasing their product price. Although it may not be an option for some reasons, platforms can implement their restaurants and work with the profit margin more freely, and customers may not want to pay the extra price that can reach more than 40% in some cases. Nevertheless, there is generally a contract, and restaurants, although they think it is unfair, it is an agreement.

AppJusto also has predetermined fees but is lower, 5% against 27% for Rappi and 23% for iFood, and it is clear to understand. Some restaurant owners are also concerned that the fee may not sustain the AppJusto firm and could be raised. Evidence is presented in Table 7.

Table 7 - Evidence of procedural justice for restaurants

Description	Evidence
Platform competition	“Six months before [joining Rappi, I left iFood]. In 2019 we left [iFood]. What happens with iFood is that I started to identify their strange practices. Obviously, nothing hyper-proven, but they started to put a lot of their own restaurant. And with very low prices and wanting to put us in competition with these places. Then I realized that it was becoming just a scenario for them to apply the prices they wanted to apply. They just wanted people to have a popular marketplace and be able to put ridiculous

	promotions there. So, the person goes there to buy one of my dishes and in return has the same dish with 50% less, so you never win this competition, or you bleed absurdly, I see other partners doing this, in an idea that marketing is now like this.” (RJ3)
Cannot raise prices	“I think lowering the rate a little, because it is a bit heavy for us, our quality is very high and with that comes the value too, so we cannot increase the value [price] on the platform too much, otherwise people will not order.” (RB2)
AppJusto is clear	“With AppJusto, there are no [problems]. Because precisely he is crystal clear. If there is a problem, they get in touch, they want to solve it.” (RJ3)
AppJusto fee is too low	“How they [AppJusto] get money, they tell us, that they funded. But I always have this question, are you able to sustain yourself, don't you want to charge 1% more?” (RJ3)

Source: Author (2023)

Restaurants cannot influence the platform fee. However, this is less of a problem for them because, contrary to the courier, they do not control any part of the added to the final cost of a single transaction. Restaurants can increase the price partially and consider the other party an investment to attract customers to the salon. This indirect control can create a lesser feeling of unfairness. This may be the case in Caxias do Sul, where no other relevant delivery platforms exist. Restaurant owners are more satisfied with iFood (e.g., “Because I think [iFood] it's the one I use the most, I think it's reliable and I think it's the one that charges the least fees.” RB2) and tend to understand the procedures more clearly (e.g., “But for me, I have access to the reports at any time via their portal, which determines how much my order is, the iFood value and how much I will receive. It's pretty clear about that.” RB1).

The following section presents the data on the interaction justice dimension.

#### 4.2.3 Interactional justice

In Colombia, couriers generally feel disrespected by the platform, while in Brazil, disrespect is more toward the restaurants and customers. Platform feelings of disrespect include blocks that prevent couriers from working, lower payment per delivery, far distances for delivery, tip stolen, delivery time, and lousy support where they speak with a bot and take too much time to solve issues. Restaurant disrespect issues include waiting times to pick up an order when arriving at the restaurant, the restaurant or mall not letting them enter, and closed restaurants. In contrast, disrespectful feelings toward the customer include mistreating couriers, not receiving the order, or canceling it while the courier is arriving at the destination.

There is no feeling of disrespect with AppJusto; they do not impose a delivery time to the courier, but there is not enough delivery volume to sustain the couriers. Evidence is presented in Table 8.

Table 8 - Evidence of interactional justice for couriers

Description	Evidence
Lower payment	“Of course [they should change distribution], because there are times, there are very low paid [deliveries] with a very [high] distance [that are not considered].” (CC1)
Far distances	“Rappi and iFood have blocks for hours. From iFood sometimes they block me because I refuse, they keep sending me too far. [...] sometimes, when I refuse many, they block 15 minutes. Then if I refuse again, it blocks another 15 minutes. Rappi, it blocks more than that, it blocks for 24 hours, 48 hours for other reasons, because of their own problems” (CJ2)
Tip stolen	“[I feel disrespected] when there is no tip that they don't give us, that they steal from us.” (CC9)
Time of delivery	“Now they [iFood] have a time to deliver. But often it's not our fault that time. [For example], Because you have to collect at the mall, and I have to walk a lot to get there to be able to collect and by the time I leave, time has passed. So how am I going to deliver in the time they set? [...] Then my score will go down because I didn't deliver it in on time, but it wasn't my fault. [...] I think this should improve.” (CB3)
Bad support	“Usually I participate in this one [Rappi] because it's the only one that has more continuity on request, it plays regularly. But, if I'm honest, lately the application has been in decline, [it is] paying poorly for orders, [with] bad support. We are practically forced to work out of necessity, by obligation.” (CC6)
Time to pick order	“There are restaurants that take two hours to deliver an order. Then the guy gets pennies. [...] But it's not worth the time you spend waiting, there may be 5 or 7 deliveries. Then if it cancels, it weakens the series too. (CB4)
Not let you in	“No [it does not worth it], because there are a lot of deliveries, for example, that you pay to go. Because then, the application, if you reject it, your account will go down [the score]. Let's assume that I'm standing here and there is delivery there at the [place] for R\$6 [US\$1.26], which happens a lot, that just go in there, it's already a hand [it is hard] to go there. Leave the motorcycle outside [the mall], go inside, there's the [mall] security guard who bothers you [not let you in], then you must pick it up and deliver it to the front building for R\$ 6 [US\$ 1.26]. Not that it's bad, it's my job to do that, but I could call a boy [courier] who's nearby, sitting in the front, you know?” (CB2)
Closed restaurant	“Yes, because there are times when you go to the stores and say that the store is closed and they don't believe, as I said, they believe that

	you are stealing the order. When one says, [the platform] calls another courier and another, another, another, and they don't believe. So it is disrespectful because we are working.” (CC5)
Treat you bad	“For the platform no, sometimes the customer treats you bad [...]” (CB1)
Cancel order	“There is a problem in this platform [...] if the [customer] has an accident or cancel the order [...] the [customer] does not pay you the full value [...] they will not pay you for the journey from here to there [...] if you are paying, I'll go to the address because it's not my fault that the client didn't come out, whatever it is, they'll cancel it and they'll automatically charge you with a debt, so you're wasting time and gas.” (CC1)
No delivery time on AppJusto	“AppJusto does not have [delivery] time. iFood and Rappi have [delivery] time. [...] usually it's all 10 minutes, it could be 600 km is 10 minutes. If you don't arrive on time, they move the delivery, the time you [arrive] the delivery disappears from the screen [you lose the delivery]. Because they don't count uphill, downhill, traffic lights, potholes, detours. They think the person can fly. So, the biggest problem is the time they put in, there are no conditions. [...] That's why I don't work during the day, there's traffic during the day [...] and that's why people die, [...] they cross red lights.” (CJ2)

Source: Author (2023)

Interactional justice evaluates the feeling of being treated with respect. Someone who does not value individuals work or time may not treat a person with respect. Platforms are perceived as mistreating the couriers, not paying well, not respecting their time, or being empathic (e.g., “The best information is that they really put themselves in the courier's shoes. That they understand that one has to take out of their pocket to pay for everything to work. We take risks in the street, being run over if one gets up in the rain. The only way they get better is when there is thunder and rain. Horrible is the only way they pay well, but the rest don't pay well.” CC6).

AppJusto tries to avoid disrespect issues, avoiding delivery times and scores, and raising awareness of restaurants and customers to respect couriers' time (e.g., “We agree much more with AppJusto's policy because it is fairer for both the platform and the restaurant and the delivery person. It is a rate that revolves around 5%. Moreover, they pay the courier better, so, as a vegan restaurant, it's something that matters a lot to us, the issue of respect for the worker, for everyone involved in the process for things to happen.” RJ4).

In Colombia, there is also this feeling that respect by the platforms is appreciated, especially when couriers need to communicate with someone who can quickly and efficiently solve courier issues (e.g., “All the applications treat us bad, because they are a little unfair, but

it seemed to me that Rappi was more unfair to us, that is, with Rappi we always need a support collaboration or something and was with a robot, with a computer. But now with Didi, well, we have the option of speaking with a person as such. Do we have any problem? We communicate with support and a person attends us directly.” CC3).

A fair interaction with platform participants may not be the main dealbreaker, but it can build a trusting relationship in the long term, although this generates a cost, which means having more people in the platform’s support area to attend to the demand.

For the restaurateurs, in general, they do not feel disrespected by platforms. However, some issues are recurrent problems with the platform, especially the platform support that uses chats and chatbots, long waiting times for support, difficulty in solving problems fast, and some cases of not controlling the online store. There are also problems with customers who cancel orders and couriers who are demanding, steal, take too much time to deliver, or deliver the product in poor conditions. Compared with other platforms, AppJusto is perceived as more restaurant-oriented and with a fast response time. Evidence is presented in Table 9.

Table 9 - Evidence of interactional justice for restaurants

Description	Evidence
No disrespect	“For the platform, no [I didn't feel disrespected]. There have been times when some couriers... but that was a long time ago. They greatly improved the quality of their outsourced service in terms of labor, the courier. It was a very big evolution. There were some couriers in the region who came and really thought they could run our business, and that's not the case. I have an average time to deliver the product, I have a logical production sequence in my kitchen, and I also have to meet the demand for the salon, iFood and my own delivery. So, it's not, an order went out now and the courier is already here in front of us collecting: Well, where's the order? It's not like this. But that too has improved a lot. [...] They qualified people better, I don't know if they chose better too. But it got a lot better too. So today, it's the smallest thing, I never [felt] disrespected.” (RB1)
Bad support	“For me the main thing is the support, a good support that they do with a robot or with humans, but that they do it well, that's the main thing. Didi is a very good support plan. It is very good support; the application is very good. Didi, what happens is that he has no movement, very little. Rappi has a bad platform. Bad support. And thief’s couriers. Didi has everything very well controlled, but it has no movement.” (RC7)
Problem solves	“The iFood they didn't serve you. It was like this, you went to iFood for a complaint, and you were the 578th on the list and whoever wants it just waits, waits. An hour later there was a problem to solve,

	try to sort it out with the customer, apologize, or wait for him to give you a dick in the reviews and you reply: sorry man, I tried to solve it, but the iFood people are not answering.” (RJ2)
No control over online store	“The biggest problem we have with the platform is rainy days. This is a big problem, when the weather is bad in the city, the platform restricts our delivery. Because as we work with their partner delivery, which is with their [iFood] couriers, when the weather is bad, a lot of rain, many couriers don't work on those days. So, it reduces the number of couriers they have available to hire for our orders, so they end up reducing our delivery area or many times they end up closing the restaurant by themselves. We can't open it if we want to, because they don't have couriers available to work at the moment. This happens on rainy days, days that are very cold. [...] and this has a direct impact on us. We don't have much to do in this case, because as we depend on the courier to make the delivery and the platform also depends on the courier, so if the person decides not to work that day, there is nothing to do.” (RB4)
Customer cancel	“[...] if we cancel, Rappi charges us as a fine, but if they [clients] cancel, normal, cancelled. [...] That's why I say that it's not so good that they [the customer] ask us [to deliver food].” (RC1)
Demanding couriers	“Sir, [the application] just rang, and Rappi doesn't give us a range of time. Before he told us: it takes 25 minutes [to courier arrive], oh well, in 25 minutes [its ok], but if your Rappitendero [Rappi courier] arrives early, if I accept the order, they already contact the courier to come. Never take 25 minutes, but after 5 minutes or 10 minutes [the courier] is already here. And one usually has orders on the tables. So that's like logistics. Sometimes they [the courier] harass you, like with the orders from the salon, with the courier orders, with our couriers, it became a complex burden, but it's like one of the most significant problems. Because in relation to payments, in a matter of other issues, no, there is not so much inconvenience.” (RC9)
Steal	“Los Rappitenderos [Rappi courier] who steals. It happens a lot. It is already very controlled, but if it happened to us a lot, it eventually happens once every 3 months, they always do something to us. There they steal from us, adulterate, fake, impersonate, I don't know how they do it.” (RC7)
Delivery time	“It is what I was telling you, that when they take a very large order and the order does not arrive, the customer begins to call us: I ordered at Rappi and I ordered two pizzas and 3 other things and where are they? Sir 20 min ago they came out with that. Oh no, now the platform that would give me back the money. It is good that they come [the platform] and that they solve it for you. I know that those 80,000 [pesos - 19,91 USD], those 60,000 pesos [14,93 USD], which were for inputs, were lost. So in a certain way, yes, it seems unfair to me.” (RC9)
Damaged product	“Sometimes delivery problems. It's because the couriers have nothing to do with the brand, so obviously they don't care, as the final result at the time of delivery. Well, most of the time it arrives

	well, but we have had occasions in which it did not arrive, because as in the optimal way, or they take a long time making trips elsewhere, then the dish arrives cold. It's basically like that.” (RC10)
AppJusto	“There was a moment when they changed their terms, and obviously it's published and exposed, but I wasn't warned, and I was caught [by surprise]. It was a month after they launched the insurance, and there was a kind of problem that when their courier [from AppJusto] suffered an accident, and the food was not delivered, they would pay [...] and then it was not like that anymore. And I had a request, two months before this happened and they paid everything, and a month later the same thing happened, and I had to pay everything. And I felt a bit lost. [...] But compared to other companies [platforms] it was much clearer than others that leave me blind, deaf, and dumb.” (RJ3)
Source: Author (2023)	

Restaurants perceive AppJusto as thoughtful and kind, from the person who attends the chat to the CEO. They try to develop a closer relationship with the restaurant owners, who regularly speak with the CEO, exchange ideas, and advise to improve the platform. Concerns about whether the platform can sustain itself with this low fee and if it will be sold to a bigger one are discussed openly to make everything clear and build trust. This trust-building process can help restaurants become brand promoters, which can help with more couriers, more customers, high reach, and maintenance of lower fees (low inputs) compared to competing platforms.

Our last dimension is informational justice in the next section.

#### 4.2.4 Informational justice

In general, the information provided by the platform for couriers is irrelevant or not enough to comprehend what needs to be done, although there are some issues, such as some fees are not entirely clear, the score or ranking system is not well understood, or it looks irrelevant. Couriers do not feel that the platforms hide something from them, although they cannot fully trust this perception. AppJusto is more transparent than iFood; the information is clear and easily accessible through the website, and the delivery values are on the first page (APPJUSTO, 2023a, 2023b). iFood (<https://entregador.ifood.com.br/>), Rappi Brazil (<https://rappientregador.com.br/>), and Rappi Colombia (<https://soyrappi.com.co/>) do not present the delivery value for couriers in their first page. Evidence is presented in Table 10.



Table 10 - Evidence of informational justice for couriers

Description	Evidence
Lack of information	“Rappi does not give any information to one.” (CC9)
Unclear fees	“It hides the gains quite a bit. When it comes to entering the rate, for the restaurant it is one, for the company it is another, for the delivery person it is another. It is not quite clear how much the real value is.” (CB5)
Doubtful score	“I believe that the score system should change [couriers receive a score from 1 up to 3]. This thing harms a lot, when I started, there were days that I stayed here from 11 am to 10 pm and does not ring any delivery, and you need to stand there, need to be available.” (CB1)
Trust	“So, I don't think [they hide something from us], so no, but you'll know, right? Can't trust.” (CB4)
AppJusto transparency	“I don't think AppJusto does, because it's a very transparent app, but everyone is suspicious of iFood. Because they [iFood] charge an absurd amount from the customer, charge an absurd amount from the restaurant and we receive peanuts. There must be something that makes them profit a lot.” (CJ3)

Source: Author (2023)

The amount of revenue someone can get at the end of the month matters, but platforms create complex systems that do not reveal information, which looks more appealing than trying to explain the complexity. Informational justice exists if information is reasonable, timely, and specific. For an outsider, only AppJusto fairly discloses the relevant information. For Rappi and iFood, it looks like there are fees over the delivery value, and there is an extra payment for promotion, probably to incentivize couriers to be available at certain times and days, where the most common is the rainy days where the payment per delivery increases, although the exact increase is never straightforward.

Regarding informational justice, restauranters do not feel that the platform hides something from them, but they are not entirely sure, which raises some speculation, such as how the demand and offer are tweaked. The information provided is reasonable, sometimes helpful, and sometimes does not make any difference to the restaurant. However, restaurants can perceive some issues, especially the ones that use AppJusto, such as how the restaurant shows up in the application feed for potential customers. When a customer opens a delivery platform App, several restaurant alternatives appear on the first screen, which, in general, is a feed that users roll down. For restauranters, it is unclear when, why, in which frequency, and in which order their restaurants will appear in this feed. Creating doubts and lacking information on how this feed works increases the feeling of unfairness. Evidence is presented in Table 11.

Table 11 - Evidence of informational justice for restaurants

Description	Evidence
Hiding information	
Demand/offer	“I believe that some of their strategic definitions [of iFood]. And they have a policy of encouraging certain regions at certain times, we understand that. Sometimes a lot of orders come in some days and in others almost nothing comes. So, we realize that there is this, a direction, that some regions are much stronger than here. I think they target orders to certain regions too much.” (RB1)
Information help	“[The information helps, for example,] Perhaps in the statistics, when one sees that there is a dish that sells more than others. Perhaps this month's sales were low, but we are going to put Rappi for the next one. You know that they are going to increase 1,000,000 or something more, so that is how the analyzes that one does are like with the platform. They keep insisting that we do promotions. Look, this week we are going to do the World Cup, a soccer promotion tells me: no, it's just that with the commission I give you I'm practically lost.” (RC9)
Information does not help	“No one has time for these things [analyze information from platforms]. [...] only if when the person is very big, it is not he who is doing it. She has a third party to do this, an employee, so maybe that person makes use of it and ends up earning more. That money attracts money thing, there's no other way.” (RJ5)
Customer feed	“In AppJusto I know how the initial screen, the feed, is formed. On iFood: why did this restaurant appear first and not mine? I have a score of 4.9 has a cancellation rate lower than 0.01, maximum score [...]: why is this restaurant still showing up and I'm closer to the customer than he is? [...] I get indignant because I open [the application] and I don't find my own restaurant easy. And I am exactly the public of my restaurant, vegan, which is niche to top it off, and there are restaurants that are not even niche and appear before me. [...] I'll be very honest with you, it even raises doubts, what does he have, a better contract with you, he has some kind of favoritism. I'm going to be very serious, I'm not saying that there is, I'm saying that it's a question that is relevant to me.” (RJ1)

Source: Author (2023)

Information is part of a contract agreement between the restaurant and the platform. There is this presumption that if we sign the contract, we are aware of and follow the information provided therein. While there is this agreement, there is a feeling of “This is the way”, meaning that there are no other competing alternatives (e.g., “If I was to choose, I wouldn't work with delivery, at least speaking about iFood.” RJ1). From a platform point of view, the lock-in effect allows big players to disregard the provision of a fair amount of

information for platform participants. However, although the informational justice is not a dealbreaker, it can make the transition to a new platform less troubling, promoting its adoption, a strategy that AppJusto uses in its favor.

In the next section, we summarize the main findings of the data collection and analysis steps.

### 4.3 Findings summary

Table 12 summarizes findings related to the justice dimensions for couriers and restaurants. In general, couriers understand that AppJusto pays better than competing platforms, but they remain on other platforms due to the low volume. In Colombia, couriers try to use other Apps, while in Caxias do Sul, couriers try to use WhatsApp to raise the volume during the low demand times of iFood as an alternative to increasing outcomes.

AppJusto may need less working time since one of the thing that couriers value is flexibility: “[...] I think about 7 hours [of work] a day, it’s not little nor too much, is a middle ground to have a good average [outcome].” (CJ1).

In Colombia, there is a higher feeling of disrespect and lack of information from Rappi; even in Brazil, it may have serious issues, “Rappi is really a rogue. If the customer cancels the order, it [the platform] automatically transfers the debt to the delivery person.” (CJ2), which is a governance choice.

Restaurants have a more neutral feeling concerning platforms. They still believe the charged fees are too high, but they generally see it as a marketing strategy to attract customers to the salon. The money paid for platforms is perceived as an investment, and in some cases in Brazil, it is a way to allow restaurants to invest in structuring a delivery system with its couriers.

AppJusto is perceived as highly fair on the charged fees, and restaurateurs even raise concerns that they should not charge higher fees to sustain the business and what will happen when they grow up; for example, “I said look, in five years, this [AppJusto business] is worth BRL 1 billion [USD 210 million], are you going to sell it to iFood?” (RJ2).

Table 12 - Summary of justice dimensions of couriers and restaurants toward platforms

Justice dimensions	Rappi	iFood	AppJusto
<i>Couriers</i>			

<i>Distributive</i>	Need to be available to work, generally at the same times, and although the working hours per day are high (>10h), there is no intention to leave due to no similar opportunities (US\$ 1.02/delivery)	To achieve higher returns, the working hours per day are high (>10h), but there is more flexibility in the day hours, and there is no intention to leave due to no similar opportunities (US\$ 1.26/delivery)	The return is more attractive (US\$ 2.53/delivery), but the volume of deliveries is low
<i>Procedural</i>	Platform owners define all procedures. On AppJusto, couriers can create their fleets with their own rules		
<i>Interpersonal</i>	Disrespect is high, couriers speak with a bot, complaints take too much time and are bureaucratic (The exemption for Didi Food where you speak with a person)	There is no disrespect feeling couriers speak with a bot	There is no disrespectful feeling
<i>Informational</i>	There is little or no information. Account lockouts are random and not understood. Tips are not always paid, or there is no clear information	There is no relevant information	The information is clear, and there are no account lockouts
<b><i>Restaurants</i></b>			
<i>Distributive</i>	The tax is high (23%), and the order volume is too. The platform is a market strategy to attract customers	The tax is high (27%), and the order volume is higher. There is no intention or choice to leave, and the platform is a market strategy to attract customers and, in some cases, to avoid own couriers	The tax is lower (7.42%), but the order volume is low.
<i>Procedural</i>	Platform owners define all procedures		
<i>Interpersonal</i>	There is no disrespect feeling, but when orders get lost by couriers or canceled by customers, the restaurant may have to compute a loss	There is no disrespect feeling, but restauranteurs speak with a bot. In São Paulo city, complaints take too much time to get solved	There is no disrespectful feeling

<i>Informational</i>	There is no relevant information	The information is unclear; there is information, but it does not help increase sales. There is doubt about how people will find the restaurant in the middle of so many options (other restaurants)	The information is clear, and there is online material that can help
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Source: Author (2023)

Our data suggest that AppJusto is perceived as fairer from couriers' perspective, but delivery volume needs to increase. AppJusto is also fairer from a restaurant's perspective, but volume is an issue. From a procedural perspective, there is not much room for negotiation. PBE establishes governance and implements it for all. Interactional and informational justice is an issue at Rappi in Colombia and Brazil, and AppJusto provides better interaction with couriers and restaurants. Informational is not an issue with some evidence of problems.

One interesting finding is that the restauranters talk differently about iFood when they know AppJusto. Although the issues are the same, the emphasis on the iFood problems is more evident than when they do not know other fairer alternatives. A restauranteur who knows AppJusto says, "I was very unhappy with the partnership with iFood [...]" (RJ3), while a restauranteur that does not know other alternatives says, "[...] I think [iFood] it's the one I use the most, I think it's reliable and I think it's the one that charges the least fees." (RB2), which may indicate that the perception of fairness is more related to the capability to achieve what each one values and to have choices.

#### 4.3.1 Equity theory behavior prediction

Equity theory predicts that the inequity feeling may lead to some behaviors by the person that feels it, like a) increasing inputs that are low relative to other inputs and his outcomes; b) decreasing inputs that are high relative to other inputs and his outcomes; c) increase outcomes that are low relative to other outcomes and his inputs; d) decrease his outcomes that are high relative to other outcomes and his inputs; e) leave the field; f) psychologically distort his or other's inputs and outcomes as required; g) force others to leave the field; or h) change his referent other (ADAMS, 1963; PRITCHARD, 1969).

When we talk about the courier's behavior, the feeling of unfairness is high, mainly about distributive and interpersonal justice. Couriers try to decrease inputs, avoiding double deliveries in the same deliver or refusing deliveries too far (*item b) decrease inputs that are high relative to other inputs and his outcomes*). As an attempt to have more outcomes, couriers increase the working hours to be available for the platform more time, increase rank, and get more deliveries, which increases inputs to increase outcomes (*item a) increase inputs that are low relative to other inputs and his outcomes, and item c) increase outcomes that are low relative to other outcomes and his inputs*). Abandoning the platform is not an option, although some desire to leave but are conditioned to other jobs that pay well (*item e) leave the field*). Freedom of working time is an outcome for couriers; however, they also need strict working hours to profit, indicating some distortion of the reality (*item f) psychologically distorts his or other's inputs and outcomes as required*). They do not speak for others or incentivize or recommend leaving the platform. There is a sense of community and individualism at the same time. Couriers know that all of them are in a tricky situation, but each one knows what is best for them (*item g) and forces others to leave the field* – not found). Couriers work in the platform to increase outcomes concerning not having a job or a job that pays less (*item h) change his referent other*). We find no evidence that the couriers try to decrease outcomes (*item d) decrease his outcomes that are high relative to other outcomes and his inputs*).

While AppJusto is fair with the couriers, by the courier perception and quantitative data related to pay per delivery, the low delivery volume does not allow them to work only with AppJusto. AppJusto ranked higher than Rappi and iFood in the Fairwork Rating Report Brazil 2023 (FAIRWORK, 2023b, 2023a). Evidence is presented in Table 13.

Table 13 - Evidence of behavior for couriers

Description	Evidence
<i>Item a) increase inputs that are low relative to other inputs and his outcomes</i>	“With more working time, this is the only way [to increase profits].” (CC7)
<i>Item b) decrease inputs that are high relative to other inputs and his outcomes</i>	“There is delivery that is not worth the guy doing. So, if the guy refuses, it [the App] doesn't play [doesn't enter deliveries] anything afterwards, stops playing [enter deliveries], weakens the application. Then there's delivery, which is to collect two orders and take them to [two] place for the cost of just one.” (CB4)
<i>Item c) increase outcomes that are low relative to other</i>	“I won 2.500 BRL [526 USD in a formal job], here, sometimes you get 4.000 BRL [842 USD], 3.500 BRL [736 USD], it depends. If you do only the weekends [...] you can make 500 BRL [105 USD],

<i>outcomes and his inputs</i>	and then you do 4 weekends is 2.000 BRL [421 USD]. Only the weekends. Of course, you need to push yourself, but if you make the effort, you will have the results.” (CB1)
<i>Item e) leave the field</i>	“I would say yes [I would leave the platform], if I get a job that I like and that pays me well, yes, then it is the moment I would leave it.” (CC10)
<i>Item f) psychologically distort his or other’s inputs and outcomes as required</i>	“Inside a company you cannot leave. I’ll go home, I’ll go to my mother’s for coffee at any time. You live longer [better], right?” (CB2) And “In order for you to make 60,000 pesos per day [15 USD], you have to work at least 13 or 14 hours a day.” (CC2)
<i>Item h) change his referent other</i>	“Some days it doesn’t and some days you start having deliveries very early [...] you can reach a nice value. Just so you have an idea. If I get a job nowadays, even a job, the salary is 1400 BRL [295 USD]. [...] The guy will have the INSS [social security] discount, medical, dental insurance, that goes to about 1200 BRL [253 USD]. [...] I’ll still be generous, it goes 1300 BRL [274 USD] and you divide it by 30 days, 43 BRL [9 USD] per day that a person usually earns on average for a day worked. Not me, I per day, making less than 130 BRL [27 USD] is practically impossible.” (CJ3)

Source: Author (2023)

When the topic is related to restaurateurs’ behavior, with some exceptions, the feeling of unfairness is high to distributive and interpersonal justice, while informational justice, or the lack of information, creates some speculations about platform practices.

Some restaurants try to attract customers to the platform by increasing inputs (*item a) increase inputs that are low relative to other inputs and his outcomes*), but in general, they prefer not to increase inputs and use platforms as a strategy to attract customers to the restaurant in-person (*item b) decrease inputs that are high relative to other inputs and his outcomes*). Restaurants also try to increase outcomes using the same strategy of attracting customers to the restaurant in person or raising the prices, although this last strategy has a limit in price increase that the customer may accept (*item c) increase outcomes that are low relative to other outcomes and his inputs*). The decreased outcome of participating in the platform is not a perceived behavior but a forced one. Otherwise, customers may not be attracted by restaurant promotions, except in the case of AppJusto, where restaurants suggest increasing the restaurant fee to guarantee the sustainability of the business (*item d) decrease his outcomes that are high relative to other outcomes and his inputs*). Leaving the platforms is more a desire than an option since restaurants understand that having an online presence on a big platform is essential. Customers

want this option, and other alternatives, other better platforms, are of limited viability (*item e*) *leave the field*).

Most of the restaurants do not add the entire platform fee to the product, and on top of that, they add promotions, discounts, and free delivery for customers, which reduces the profit margin. However, some believe that this is an investment that will attract customers to the restaurant in person and generate higher profits, which may indicate a distortion of reality because restaurants do not have access to customers to know which ones are coming in person because of the platform (*item f*) *psychologically distort his or other's inputs and outcomes as required*). Restaurants do not force others to leave platforms, and in the case of AppJusto, they may even recommend entry, because more restaurants mean more couriers and lower delivery times (e.g., "I'm promoting it to restaurants here, for friends of mine to get it" RJ2). Finally, restaurants do not change their referent other, and sometimes they perceive that are big restaurants, such as McDonalds and Burger King, that benefit from platforms more than them (e.g., "[...] very large companies, such as Burger King, McDonald's, even they don't even pay to be there [on the platform]" RC2). Evidence is presented in Table 14.

We do not interview any dark kitchens. However, we encourage future researchers to explore this topic since their view of delivery platforms may vary because a market strategy to attract customers is not an outcome.

Table 14 - Evidence of behavior for restaurants

Description	Evidence
<i>Item a) increase inputs that are low relative to other inputs and his outcomes</i>	"The only option that I see is to inflate the prices or reduce the commission is the only option that I see. I don't see another. The sale is really good, the profits are not so good, but. From the point of view, as I told you, right now the investment in advertising in recognition of the brand is very good." (RC7)
<i>Item b) decrease inputs that are high relative to other inputs and his outcomes</i>	"No [we're not trying to increase our profits], it's been organic. Yes, you can pay a little more for promotions that are paid as advertising and sell more, but we have been doing it organic, what sells sells." (RC6)
<i>Item c) decrease his outcomes that are high relative to other outcomes and his inputs</i>	"Well, for me today it's worth it. There are several cases of customers who used iFood, did not know the hamburger shop, and today they are salon customers [...]. So, that's why we turn it into an investment in media that pays for itself over time and is cheap. Because I didn't need to invest in any specific channel to bring this customer, iFood itself brings this customer to the salon, so that's important too, [...] and they end up being loyal customers today." (RB1)



<p><i>Item d) decrease his outcomes that are high relative to other outcomes and his inputs</i></p>	<p>“To participate in the campaign, you have to give up a part, so we end up not participating because it's not worth it. Since their rate is very high, it's 30% and we don't even pass all that on to the end customer.” (RJ4)</p> <p>And</p> <p>“I think that for me it is satisfactory [the percentage of AppJusto]. I think it's fair, I mean, I'll even tell the truth, for them I don't think so. [...] I think you have a profit of 7% I think it's not much.” (RJ2)</p>
<p><i>Item e) leave the field</i></p>	<p>“I only use AppJusto [...]. I started working with iFood, because of the pandemic and we were closed. In fact, I never needed to deliver, because my hamburger place is next to the [university] [...] and around here there are a lot of buildings, a lot of residences that are the republics. So, my target audience is basically the [university] crowd, so I never needed delivery, because I can't even handle serving my clientele in loco. But in the pandemic, I was forced to resort to delivery because I didn't have a courier. I tried to hire a courier and I realized that you can't, they are allocated. [...] I tried to get the courier, the guy would stay here for a week, and he would go back to iFood or else he would ask for permission to serve iFood.” (RJ2)</p>
<p><i>Item f) psychologically distort his or other's inputs and outcomes as required</i></p>	<p>“You already have a [very large] discount from iFood and when you enter their promotions, then you don't even know what you get [in fees], how much you pay for transport, how much you give a 5 or 10 percent discount. Because many restaurants adhere to this. So, the discount is out of control. You have no idea what they discount. It's a crazy sangria, thinks a crazy sangria. I don't even want to imagine how much iFood's revenue would be, imagine, it's crazy.” (RJ5)</p> <p>And</p> <p>“In the Marketplace [the platforms], with them we have a different strategy. Because the Marketplace is only for people to get to know us. Because for them we have such high rates that they take us as commission, plus the hassle and bad, more taxes, we must generate a different attraction strategy with them. Especially our product that is in the yellow line, which are empanadas, cakes, and sticks, so with them [we make] combos to attract people and then I can refer our own couriers so that the cost goes down. Because in reality it is very expensive, but we do it more so that people are there, see us, know that we exist, get to know us and then on the other side we do, as that part of direct attraction to our channel.” (RC2)</p> <p>And</p> <p>“At iFood and Rappi there is something that bothers me a lot, which is the lack of autonomy and the search for autonomy. So, for example, the fact that I can't communicate with my client. I think that takes away something very valuable, which is that I can't even ask him to contact him or something like that. [...] I think this is very cruel, because it takes away 100% of my autonomy. Sometimes that's it. It's not even that I don't want to remove it from iFood and put it on AppJusto because I pay less. Sometimes I</p>

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literally want to communicate with him and say: there's a new snack or I opened my restaurant. In AppJusto there is this thing about me being able to have better communication, a possibility of communication. And there is autonomy, the customer's autonomy in wanting to be communicated by the restaurant, the restaurant's autonomy in being able to communicate with this customer.” (RJ1)

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Source: Author (2023)

The following section will present the discussion based on the theoretical background and empirical data.

## 5 DISCUSSION

The following discussion will be based on the theoretical background literature and the empirical data. For straightforward reading, we do not differentiate which contribution comes from each part of the text. However, to make it clear, Table 15 summarizes where each contribution came from theory or empirical data.

Table 15 - Contribution's summary

Contribution from the theory	Contribution from the field
Capabilities (SEN, 2009)	Platform participants want freedom (reinforce theory)
Capability to control own environment (NUSSBAUM, 2003)	Platform participants cannot be responsible for behaviors based on rules they do not influence (non-existent in theory)
Procedural justice (MASTERSON <i>et al.</i> , 2000)	The capability to do or to be what someone values is not the same as the capability to control one's environment (non-existent in theory)
Reflective equilibrium (RAWLS, 1971)	It is possible to integrate contractarianism and capability approaches of justice (non-existent in theory)
	Capabilities may need a context-by-context analysis to fully understand what limit or improve freedom (partially existent in theory)
	Distributive justice is not a relevant justice dimension in a broad discussion (reinforce theory)
	The contractarianism approach to justice is a structural problem of today's society (non-existent in theory)

Source: Author (2023)

Whenever someone accepts the terms of a contract but believes that there is no other option and the relationship is unfair, any contractarianism theory about justice falls apart in practice. This thesis argues that a contract is not unfair because it is incomplete, things change over time, or some contracts are imposed. A contract is unfair when it denies or restricts freedoms when implemented. However, our society is also unfair when our institutions reproduce and reinforce contractarianism, affirming that signed contracts are fair. Education institutions reproduce unfair practices when they use contractarianism theoretical and practical approaches, which preserve the society's unfair structures, and governance systems are part of today's organizational practices.

First, our cases strongly support Sen's (2009) idea of justice with empirical evidence. Couriers want freedom from a 40-week hours contract with a firm, or at least the illusion of

freedom. They want to be capable of working more hours and receiving more money for this work, but they also want to be able to choose other jobs that pay and a platform without the inherent risks. Restaurants want more platform options to deliver the same outcomes, so they do not need to stick to a single corporation. They want to be autonomous from the platform and can contact the customer directly if needed without an intermediary controlling this direct access. Restaurants do not even bother to pay expensive prices, but keeping the freedom and not being obliged to do something is crucial. The feeling of unfairness grows whenever those or other freedoms are limited or denied.

Following Nussbaum's (2003) suggestion to improve capabilities, we use our case studies to refine the capabilities approach. First, Nussbaum states that a capability is the capacity to control one's environment because this is just. We found that even when people do not control their environment, they can perceive the governance as fairer; as couriers stated, it is better to work for a platform, have the chance to receive three times more, and have perceived flexible working hours than work in a firm that pays less and have a fixed workday. Nevertheless, the feeling of not controlling the environment and not having the option or freedom to choose other places with similar features creates a conformism.

The capability to control one's environment proposed by Nussbaum (2003) is related to procedural justice with the difference that in Nussbaum, freedom is the objective of the capability, while in procedural justice, the process of deciding about the distribution of the outcomes is the objective.

Our cases indicate that, since freedom is the objective that couriers and restaurateurs want, procedural justice can focus on the capability to do or be what they value, not the distribution. Reinforcing that value share is less relevant when financial distribution is at the core of the negotiation process and that freedom should be the guideline in a procedural justice approach. It also creates a separation between the capability to do what someone values and the capability to control the environment; for example, a restaurateur can still control how much they will charge for the product inside a delivery platform if financial gain is what they value, although most prefer not because they value more the platform reach concerning new customers. However, they do not control this reach, how many customers are coming in person to the restaurant due to the platform, when the platform will shut off their online restaurant or reduce their geographical coverage.

Control over a process and the capability to achieve what someone's value can create some paradoxes about fairness. The same governance creates fair and unfair situations.

Governance is fair, based on a contractarian view, if there is a signed contract, and unfair because the governance, based on the contract, restricts a person's autonomy. How can something be fair and unfair at the same time? First, contracts, even when mutually accepted, can promote unfair situations. Second, distributive justice is not broad enough as a justice theory to be seen as a principle everyone can accept.

Now, we bring back the concept of principles, which are the guidelines to solve the problem of interdependence and uncertainty. Principles are mechanisms that orient, enable, and constrain behavior (MCEVILY; PERRONE; ZAHEER, 2003). Freedom through the capability concept is a strong justice principle, but its mere existence does not vanish the contractarian view of justice from the earth. How do we deal with both?

First, we propose that capability is a guiding principle that all can accept and a way to have a common understanding of what justice is and how to achieve fair conditions in society. At the same time, the concept of capability can orient the development of rules for involved actors, but as Martha Nussbaum (1993) argues, it is necessary to be more specific to avoid the entire contractarianism approach. Our cases reinforce this view and refine the capability to control the environment for platform participants. It is not the control over the distribution of outcomes that is a dealbreaker but the freedom to leave the platform without loss. On the other hand, the lock-in effect that platforms promote limits or deny the freedom of platform participants creates substantial barriers for new entrants and increases the general feeling of injustice. Any rules that increase participants' capabilities are felt fairer than those rules that constrain their capability as an individual.

Second, capability as freedom is incomplete without limits. From Stuart Mills (1859), who states that state individuals are free except to injure the interests of one another, to Amartya Sen (2009), who states that people should be responsible for their own choices, we agree with both. Nevertheless, we need to define what is people's own choices and how much freedom they exert on these choices, which we explore in the next section.

## **5.1 Contribution to jurisprudence**

Governance is the rules that will influence and guide participants' behavior (BOURCERET; AMBLARD; MATHIAS, 2021). People who are constrained by a governance system and have no option except to obey do not have the capability to do something they aspire. The capability to influence behavior is not in the hands of the people constrained to the

governance because they do not have the power not to oblige. The capability, or the power to guide behavior, is in the hands of the formulator of the governance system.

The scores for couriers and restaurants, delivery time, locks, taxes, and penalties are all governance mechanisms that lead to behaviors such as not refusing orders for restaurants and deliveries for couriers, increased traffic risks, and lower outcomes. This governance system creates, for example, an illusion of flexibility where couriers need to work 13 hours per day (CARDOSO; ARTUR; OLIVEIRA, 2020; VACLAVIK; OLTRAMARI; OLIVEIRA, 2022), or restaurants do not feel autonomous and are obliged to remain in the platform. We argue that platforms evade responsibility for their rules based on a contractarian worldview.

The power over others comes with responsibilities (SEN, 2009), or in other words, “With great power comes great responsibility” (LEE, 1962, p. 13). Any governance system not open for discussion in a ‘reflective equilibrium’ would not be fair (RAWLS, 1971). Without the capability to influence the governance system which they will be subject to and lead to some behavior, the formulator of the governance is responsible for the resulting behavior. The person, organization, or institution that formulates a governance system and does not allow the people affected by the rules to influence, change, or discard it, and in some way reduce the capability to do or to be of individuals must be held accountable for the resulting behavior.

A courier working on a platform without the capability to find any other similar job (same outcomes) and suffers an accident because of a delivery timer will have a discount on their payment or lower their score, which is much responsible for the accident as a baby born is responsible for feeding themselves. From a jurisprudence point of view, the contractarian perspective is of limited reach. Although our area of expertise is not the law, this work can open the debate for more qualified people to improve the jurisprudence related to platforms, freedom, capabilities, and responsibilities, contractual or not.

Notwithstanding, we believe that the ‘reflective equilibrium’ proposed by Rawls (1971) creates the opportunity to integrate different approaches of justice without rely heavily in the distributive as a principle of justice. First, we start with the capability principle of justice, and because we need to reach some agreement about the governance system, it would be possible to develop practices, mechanisms, and rules that do not deny or restrict any freedom and that we can agree. Since participants reached an agreement that does not violate the capability to do or to be whatever each one value, the responsibility for the resulting behavior rests with each one.

A firm that contracts an employee is responsible for their safety and behavior. Whenever a firm does not contract the employee and walks away from responsibility for the person working for the firm, the actual system creates unfair competition. In a conversation between Socrates and Thrasymachus in *The Republic* (PLATÃO, 2017), the last argument is that acting unfairly has more benefits than acting fairly. If that is the case with PBE governance, our system encourages injustices. The Socratic answer for Thrasymachus is that the payment for governing someone will make the people act fairly for the benefit of the governed. In our society, the solution may be more complex, demanding more debate, and involve other knowledge areas, such as jurisprudence.

Now that we have a big picture about our view of justice that considers the capability to do or to be whatever each one value, a process of ‘reflective equilibrium’ to reach an agreement, and the definition of when a free choice leads to responsibility for the choice, we can provide some contributions on policy, governance, and ecosystems in the following sections.

## **5.2 Public policy contribution**

This notion of capability may guide public policy development in society. Public policy should work guided by the capability principle more than the principle of fair distribution, and this distinction is important because fair distribution means equal distribution. However, a courier with a motorcycle may need different resources to go from one place to the other, which means that a fair distribution of resources may not provide the same capability for a motorcycle courier as a cyclist courier and vice-versa. In a prejudiced society, a woman working with a bicycle at night may face different risks than a man.

Another example related to our case, where couriers and restaurants felt locked in specific platforms, public policy should provide this kind of lock-in capability. Some of the following options are attempts to exemplify the idea of increasing courier’s and restaurateurs’ capability using public policy: a) foster other businesses, even in other areas, that can provide the same hour flexibility while retaining the same financial outcomes; b) promote a negative income tax (FRIEDMAN, 2002) that can provide people with the capability to not subject to the platform rules, such as delivery time or extended working hours; or c) avoid barriers such as exclusivity, that can lock-in restaurants inside a platform, fencing the possibility of new platforms to rise.

One example we can explore is the Fairwork initiative that urges the platform to implement fair pay, fair conditions, fair contracts, fair management, and fair representation

(FAIRWORK, 2023b). According to Fairwork, the fair pay is BRL 30,22 per hour [USD 6,36], and according to a report from FIPE, iFood couriers receive 165,5% more than workers in formal jobs. However, they only consider the time that the courier is going to pick up the order and deliver it to the customer (VIEIRA *et al.*, 2021); they do not account for the waiting time and the time and costs to come to a central point in the city, closer to restaurants. Platforms are concerned with fair pay, although we can question what is fair. One of these propositions comes from iFood and Uber to work with a minimum value per hour of BRL 10,20 [USD 2,15] (AGÊNCIA O GLOBO, 2023). However, will fair pay provide couriers with freedom of education, health, or job alternatives?

These initiatives are important, and public policy must improve the quality of life for workers as much as possible. We propose that in the middle of so many initiatives, the focus should be on providing capabilities for people to do or be what they value. As our data indicate, flexible working hours, the possibility to gain more by working more, and reducing traffic risk are essential values, more than the relation between input and outcomes and even related to fair pay. Together with the capability to do something or be what someone values, we suggest the ‘reflective equilibrium’ as the design process of public policies that involves the people the policy will influence.

The capability to influence the process or control over our environment (NUSSBAUM, 2003) can impact the freedom and outcomes of other areas of one’s life. For example, while fair pay is questionable, fair conditions, fair contracts, fair management, and fair representation (FAIRWORK, 2023b) can respectively be translated as capability of life (conditions), the capability of control over one’s environment (fair contracts and management), and capability of affiliation (representation) (NUSSBAUM, 2003) must include a ‘reflective equilibrium’ to reach an agreement among platform participants. Otherwise, they may have the capability to do or be something but may not be responsible for their behavior since they do not participate in governance development.

It is worth noting that dealing with, for example, each courier or restaurateur does not need to be one-on-one work. Nussbaum (2003) present the capability of affiliation as an essential freedom; we also recommend that this affiliation could even be concerning what each group value. For example, if there is a group that values flexibility, then one representative of this group could be chosen, one from the group that values higher value per hour and one that values less risky jobs. Each group, the public policymakers, companies, and other areas of



society, could use the ‘reflective equilibrium’ to design policies guided by the capability principle that every group could agree with and be responsible for the resulting behavior.

Nussbaum (2003) also reinforces that the ten capabilities list she proposes should be improved. We found that maybe a context-by-context, and sometimes case-by-case, can provide a better fit for capability principles, primarily related to the design of governance systems, that we discuss in the following sections.

### **5.3 Governance contribution**

Governance is the set of rules that guide behavior. It can promote interactions, value creation and sharing, innovation, and other outcomes. Although our model started with a distributive justice construct, a better perspective is of capabilities. Could a governance model based on freedom achieve better results? Platforms are the perfect example of governance models based on freedom that changed the job market (intermediation platforms) and the innovation market (innovation platforms). They are achieving higher results than any other business model to date while at the same time providing a sense of liberty to sell, buy, or create something new. Amazon, Google Play, YouTube, Tencent, Android, and Apple are examples of businesses based on platforms that anyone can use, but at the same time, explore the network effect and take advantage of the lock-in it creates.

iFood is an example of a platform that started with a fee of 10% for restaurants in 2011, and in 2023 is almost 27%. The fee increase represents the power over the delivery market and control over restaurants, couriers, and customers. As our interviewees stated, everybody is on iFood; the platform has more deliveries than competing ones. This control allows big platforms, such as iFood in Brazil and Rappi in Colombia, to decide governance without considering the participants’ interests, and this control is perceived as unfair.

Would it be possible to create a new governance model that provides even more capabilities for people to do something or to be someone that they value? We propose that governance systems that restrict capabilities may still be fair if a contractarianism model is developed based on the capability of participants to change the governance system.

Considering governance as the set of rules that can restrict, increase, or deny the capability of participants to do or to be what they value, we propose that: a) a governance that deny capabilities to do or to be and deny the capability to influence the governance system will be perceived as unfair and rule maker are responsible for the resulting behavior if people have no similar options to move on; b) a governance that provide or improve capabilities to do or to

be may be perceived as fair, but the governance maker is responsible for resulting behavior if people have no similar options to move on; c) a governance that promote or increase capabilities to do or to be and allow the capability to influence the governance system will be perceived as fair and each participant is responsible for its own resulting behavior; and d) a governance that restrict or deny the capability to do or to be, but allow the capability to influence the governance system can go through a ‘reflective equilibrium’ process of back and forth to finetune, and promote or increase the capability to do or to be whatever people value, and each participant is responsible for its own resulting behavior.

To use this model and evaluate if a governance system is or will be fair, we propose a sequence of questions with “yes” or “no”, that we encourage further improvement. The questions are used in sequence and if the answer for questions 1 and 2 is “yes”, we have a fair governance in place, for question 3 we may have to two possible outcomes depending the answer, see comments in **Erro! Fonte de referência não encontrada..**

Table 16 - Sequence of question of the justice-based governance model

Validation of a JBG model	
1.	Does the governance allow participants to change it? <sup>1</sup>
2.	Does the governance allow participants the capability to achieve what they value? <sup>2</sup>
3.	There are other opportunities which can be accessed and increase capabilities? <sup>3 and 4</sup>
1.	A “Yes” means a fair governance, a “no” move to the next question. As participants can change the governance, they can achieve an agreement that provide the capability for them to achieve what they value.
2.	A “Yes” means a fair governance, a “no” move to the next question. Participants may not change the governance, but if it provides the capability for them to achieve what they value, it is responsible for the participants and may be considered fair. Responsibility needs further study but may consider a place free of physical and psychological risks, a social safe web, fair working environment and conditions, among others.
3.	If a “yes” was the answer, the governance in place is unfair and will need to change. Since there are other opportunities that may provide capability to change the governance or to achieve what participants value, they will move out of the place with unfair governance. A contractarian view can be used since everyone can decide by its own.
4.	If a “no” was the answer, the governance in place is unfair. But because there are no other options, the society (government, universities, private sector, and civil society) need to act to provide the missing capabilities. A contractarian view cannot explain the unfair phenomenon.

Source: Author (2023)

Based on this model it is possible to classify governance systems based on two dimension, one related to the capability to influence the governance system and one based on the capability people has to achieve what they value.

Figure 14 summarizes this proposition.

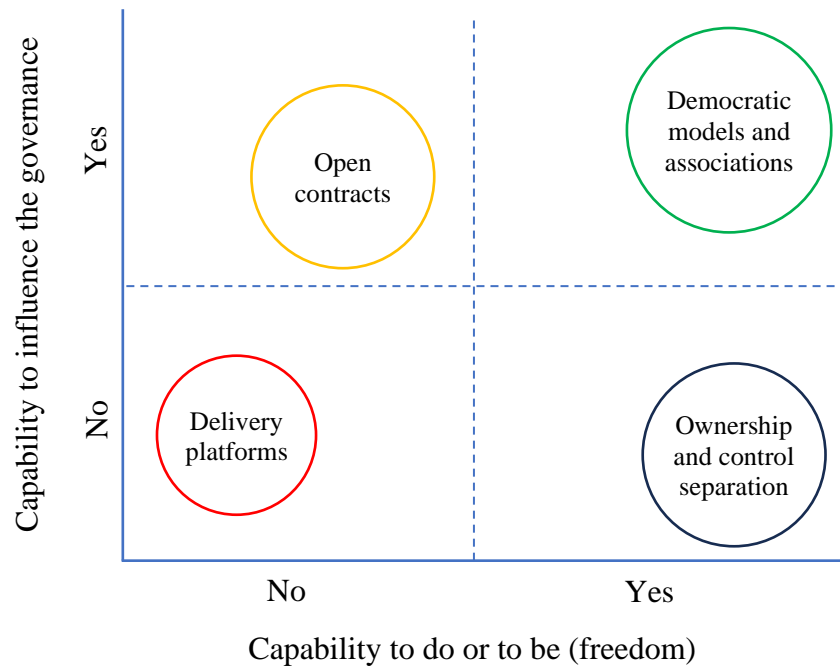
Figure 14 - Justice-based governance classification

Capability to influence the governance	Yes	d) Unfair governance system that denies capability but `reflective equilibrium` can change it	c) Fair governance system that promotes capability and each one is responsible for their behavior
	No	a) Unfair governance system that denies capability and are responsible for the behavior if no other option is available	b) Fair governance system that promotes capability and are responsible for the behavior if no other option is available
		No	Yes
		Capability to do or to be (freedom)	

Source: Author (2023)

To exemplify our JBG model, we classify four examples in Figure 15. However, we encourage further research to a) validate the model; b) improve the fit of each category with more examples; and c) evaluate if the capability to do or to be and the capability to influence the governance system are the two best variables for a JBG model.

Figure 15 - Justice-based governance classification in use



Source: Author (2023)

Agency theory tries to solve the relationship between principal and agent to separate ownership and control (ROSS, 1973). We could argue that the agents, in general, have the capability to do what they value. Nevertheless, the agents are also constrained by rules that they may not be able to change, such as delivering short-term profit for the principal or having the profit of stock valuation or dividends as an outcome. The principal, responsible for the governance system, is also responsible for the behavior of the agents, which in this case is the short-term profit. The governance is fair, but the governance formulator is responsible for the resulting behavior. This example considers that everything that the agent does is within the law.

Democratic models and associations may provide the capability to participants to achieve what they value and have a governance model that is constantly being improved based on participants' involvement. Governance is fair, and each participant is responsible for the resulting behavior, such as breaking the law.

Some agreements may define the process, but the results are more difficult to measure or evaluate until it is in place or at the end of a project. A research project may lead to nothing, new knowledge or the next significant innovation in the market. The capability to profit (to achieve what someone values) from an innovation project may be inexistent at first, but if we

formulate an open contract that participants can change, we can reflect and reach new agreements. The royalty's percentage in an open contract may vary from 10% up to 20% or be open for agreement, based or not on some principles. We encourage the capability to achieve what each one values as a guiding principle. Governance is fair because we have the capability to change the governance system, and each participant is responsible for the resulting behavior. Contracts can still exist, but if they follow the capability principle, they should not deny or restrict freedom.

Delivery platforms deny the capability of couriers to do what they value since there are no other similar options in the job market that give couriers apparent flexibility and the same salary, and there is no competition; they need to stay on the big platform. Restaurants need to stay on the platform, but even as a marketing strategy, no similar option can provide the same outcomes. Couriers and restaurants cannot influence the governance imposed by the platform owner. Governance is unfair, and the governance formulator is responsible for the resulting behavior of participants.

Our first JBG model had four dimensions, which changed to a two-axis matrix. First, distributive justice is not relevant in a justice theory that considers capabilities, and second, when participants have the chance to change the governance system, this axis includes interactional justice and informational justice because we are respecting the need for interaction to reach an agreement and protecting participants freedom while providing necessary information for the decision about the governance system to be implemented.

Society's current justice system is based on the contractarianism perspective. If there is a contract that everyone agrees it is fair (INGRAM, 1991). However, just because the law works this way or is the lazy way to solve conflicts does not mean the contractarianism approach is fair. As our cases suggest, it is quite the opposite. If there is a theory that guides the behavior but does not explain the real world, there is room for improvement. We propose that the capability approach also has flaws; in some sense, they are too broad, and what people value can mean so many things that it may sound impractical.

Nevertheless, Nussbaum (2003) suggests that her ten capabilities need refinement, which we fully agree. Our refinement led to the following tentative capabilities that couriers value: a) "real" flexible working hours; b) the possibility to work more and gain more; and c) reduce traffic risks; while restaurateurs value d) contact with customers; e) control over their store; f) attract customers to an in-person experience; g) no need to have own couriers.

For capabilities theory, this means that, again, a context-by-context may be necessary to understand what people value, without forgetting that what people value evolves over time and by the ‘reflective equilibrium’ would be possible to balance the needs, which was represented in our JBG model as the capability to influence the governance system. Notwithstanding, if people feel they are far from the decision-making process to change things, just like couriers who state that “It's one thing that, as I'm telling you, is a program, it's something random, it does not choose or think by its own [...]” [CC1], or restaurateurs that say that “[...] the bad side of iFood [...], is that it traps us. Today we see ourselves a bit hostage to iFood, because if we don't have iFood, we don't have delivery in the city.” [RB4], the feeling of unfairness arises, just like in any democratic model, where the representatives look like they do not represent what each person values.

The problem with the contractarianism view, since Rousseau (2015), Hobbes (2009), and Locke (1994), is that if there is no chance to influence the social contract or if this chance looks remotely distant, significantly when it restricts or denies the capability to do or to be what someone's value, we get disconnected from the problems that contracts create and behaviors that contracts encourage. Governance is the set of rules that the government uses to govern; if we feel disconnected from the rules that our representatives are creating, why should we abide by the governance system? As much as in platforms, participants “[...] end up accepting [the contract], because we don't have how to negotiate” [RB4], in a democratic system, we end up accepting because there is no room for participation.

The capability to influence the governance system can be improved, and the ‘reflective equilibrium’ is one way. Several governance papers are approaching participation to include relevant stakeholders in the rule-making process. However, we encourage governance researchers to move beyond the participation of stakeholders or even give them a voice. It is essential that the governance design is always open for changes, that people feel that they are influencing the governance and that the capability to do or be is the guiding principle of this governance design process. Although we expect that until now, it is clear that this thesis is not against the contract, we hope that we can view contracts as tools for our lives and not life under the contracts, in the sense that we are subject to them without any capability.

Now, heading back to a more specific contribution to governance, we conclude our discussion with the next section.

### 5.3.1 PBE governance contributions

We raised several gaps in section 2.2.2 Research gaps in PBE's governance (p. 34). In this section, we show where our study meets the urge to solve these research gaps of PBE governance. First, we researched and compared big platforms with small ones to understand the governance differences (SELANDER; HENFRIDSSON; SVAHN, 2013), a gap in the literature that was shown extremely relevant, since small PBE need to develop different governance modes to compete with big ones. Second, the critical characteristics that influence governance performance (ANSELL; GASH, 2008; WEGNER; VERSCHOORE, 2021) may not evolve positively, in the sense that governance will become better for all participants, it can lost performance when different sides of the market are evaluated, so in PBE governance cannot be looked only from one side or from the perspective of the lead organization, the call for more research on the relation between PBE governance and platform effectiveness (ZHANG; LI; TONG, 2020) must take this into account.

Third, as the trade-offs between value creation and value share remain unexplored (RANGASWAMY *et al.*, 2020), we contribute by showing that they are completely different constructs in any PBE. As a PBE grow, value creation will increase, however, value share will float between platform sides, there are clear trade-offs that platform lead firm impose to participants as network-effect triggers. Nevertheless, if we consider value as the capacity to remain free to do what each one values, this trade-off is inexistent, what is actually happening is governance modes denying freedoms, and no one should be allowed to deny or restrict someone's freedom.

Fourth, the gap that call for "More research is needed on how focal actors deal with their potential need of engaging in capability search and redeem across ecosystems that they do not control." (SELANDER; HENFRIDSSON; SVAHN, 2013, p. 195), our research shows that the focal actor, or platform lead firm, will implement governance models that can attract participants and trigger network effect, this allows the PBE to achieve control over the capability they need from others, and them change the governance as pleased, since the lock-in is in place. Sometimes this changes may be for the quality of the complementarities (WAREHAM; FOX; GINER, 2014), but as our study show, also to capture more value.

Fifth, we need further research to explore factors that drive governance practice variance (HUBER; KUDE; DIBBERN, 2017). Ecosystems and networks will evolve governance systems according to their acquired power over time. With less power, more freedom for participants will be provided, and with more power over participants, freedom will be restricted or denied. Sixth, governance systems that restrict or deny freedom must implement mechanisms

that monitor participants, which increases costs but may also increase value cocreation (HUBER; KUDE; DIBBERN, 2017). However, the contrary may be true, first because we look at value from a different perspective, and second, that lower control may reduce governance costs and increase value as freedom, aligned with the view that governance that promotes self-control is superior to formal control, and to answer the need for more research to evaluate how different control modes influence different PBEs (GOLDBACH; BENLIAN; BUXMANN, 2018), we contribute by showing that different governance modes, that provide the capability principle is, in a certain way, a different control mode that influence PBEs performance differently and can leverage new entrants in the PBE sector.

Seventh, PBE orchestrator needs to adopt dynamic and adaptive governance systems, promoting generativity and increasing quantity while avoiding user satisfaction drop or degrading user satisfaction. More research is needed to understand how value and market performance are affected (CENNAMEO; SANTALÓ, 2019). First, the simplistic definition of user may limit the understanding of which PBE side we are talking about. We argue that this degrading user satisfaction may be due to governance changes that restrict or deny freedom, so whenever governance changes, it is necessary to constantly put the capability principle upfront to avoid participants' dissatisfaction. Eight, the capability can be used to develop governance mechanisms that prevent disintermediation since the value of platforms is in the network effect, while at the same time building trust, platform community, and loyalty to recruit, motivate, and retain participants, which partially answer the research gap raised Jacobides, Cennamo, and Gawer (2018).

Ninth, remains a gap how value is shared in ecosystems (GOMES *et al.*, 2018). Our study shows that value is shared by delivering to participants what they value, not only concerning financial value. Without a complete understanding of what people value, freedom is the best principle to follow in developing a governance system. As ecosystems need to deal with several complementary participants, only the multisided view of value can provide answer to ecosystem's value share. In our case, value is subtracted from participants through governance. Value needs to be always studied from different points of view. Any research that decides to study value created or shared among participants of an interaction or impacted by the interaction needs to look at different angles and never as a consolidated construct of the ecosystem or the network.

Tenth, to go beyond the dyadic relationship between platform owners and complementors, creating the opportunity for a fruitful agenda for future research (CHEN *et al.*,



2021), our study shows that the multisided relationship must be looked from different perspectives, but also how governance and other temporal patterns change (FACCIN; VOLKMER MARTINS, 2022).

Eleventh, previous studies also urge future research to explore different contexts (INOUE, 2021; SONG *et al.*, 2018) and methods (HURNI *et al.*, 2021; JINGYAO; GANG; LING, 2021; SUSSAN; ACS, 2017). We explored the context of Brazil and Colombia, of small and big PBE, using a multiple case study, trying to provide a new perspective to the research field.

Twelfth, the capability to remain free concerning what people value can create a strong incentive to participate in a structure governed by a governance system, which can also balance power and resources, leadership, and institutional design.

Thirteenth, if the capability to achieve what people or organizations value is important, the meta-organization structures that provide this capability may increase value creation activities and platform effectiveness. A structure that guarantees freedom may be more attractive than the ones that do not, and governance systems may still be perceived as fair even if not been fair from a distributive justice perspective. Finally, governance is not static (WAREHAM; FOX; GINER, 2014). Notwithstanding, the principles are and should remain static if everyone can accept the principles.

In the next section we present the conclusions.

## 6 CONCLUSION

Our research questions were: **Why do we need a justice-based governance (JBG) model for platform-based ecosystems (PBEs), and how should it be?** To answer this question, we used a multiple-case study on intermediation PBEs in the context of delivery platforms and collected primary data through interviews with couriers and restaurateurs and secondary data from documents and websites.

Some of the PBE governance literature gaps included the lack of comparisons between small and big platforms (SELANDER; HENFRIDSSON; SVAHN, 2013), the lack of studies evaluating the relation between PBE governance and effectiveness (ZHANG; LI; TONG, 2020), the unexplored trade-off between value creation and share (RANGASWAMY *et al.*, 2020), how platform lead firm engage in capability search and redeem (SELANDER; HENFRIDSSON; SVAHN, 2013), how platform governance varies (HUBER; KUDE; DIBBERN, 2017), how different control modes influence different PBEs (GOLDBACH; BENLIAN; BUXMANN, 2018), how dynamic and adaptative governance systems influence value and market performance (CENNAMEO; SANTALÓ, 2019), how PBE build trust, create a platform community, and foster loyalty while recruiting, motivating, and retaining participants (JACOBIDES; CENNAMEO; GAWER, 2018), how value is share in ecosystems (GOMES *et al.*, 2018), how to go beyond the dyadic relationship between platform owners and complementors (CHEN *et al.*, 2021), the need to explore different contexts (INOUE, 2021; SONG *et al.*, 2018) and methods (HURNI *et al.*, 2021; JINGYAO; GANG; LING, 2021; SUSSAN; ACS, 2017), and how to not look for governance as a static system (WAREHAM; FOX; GINER, 2014).

We presented how our research answer several of these research gaps in the discussion, but in some we understand that we did a relevant contribution, while at the same time raising other questions to be discussed in future studies. Now we present the main contributions of this thesis.

Fair governance models in PBE can incentivize participants to enter and remain on the platform. With more participants, the value created and shared can increase due to the network effect. If participants believe they can create or capture more value in other PBEs or similar opportunities, they may not enter the PBE or migrate to other options. Based on this assumption, we developed an initial JBG based on the dimensions of distributive, procedural, interactional, and informational justice. Nevertheless, the reason for a JBG model partially differed from

these dimensions. JBG models that provide the capability to do or be what someone values are fairer than those that restrict or deny freedom.

With the general objective of proposing a JBG empirical and theoretical model, we identified the perception of PBE actors and identified PBE performance related to the increase in the number of users and transactions through the platform. This comparison between cases allows the development of a JBG model. Answering the second part of our question, a JBG model should consider people's capability to do or to be what they value, and if there is a process that participants affected by the governance system can influence, they are responsible for the resulting behavior they adopt as a result of the governance system. Otherwise, they are not responsible for the resulting behavior if there is no similar option (e.g., other governance systems that participants can choose).

The JBG model provides several contributions to governance. We highlight one: governance makers should account for how theories, principles, mechanisms, and practices that they are using and developing are restricting or denying the capabilities of participants to do or to be what they value because a) participants may consider the governance unfair when it is not possible to influence the governance system; b) governance create rules that influence/force behavior while the responsibility for the behavior remains with the participant, not with the governance-maker; and c) there are no similar options to choose, such as other governance models in other organizations, participants became trapped in a governance model.

For governance theorizers, who are concerned with how the governance will impact the behavior of participants and promote several outcomes, such as interactions, innovation, value creation, and sharing, we encourage the inclusion of the capability principles as a guiding line for governance studies, and also the use of some procedural justice from a capability perspective, such as the 'reflective equilibrium,' to allow the capability that participants can influence the governance system.

Regarding the contribution of justice theories, our model proposes integrating the contractarian perspective to the capability justice theory. We believe that this integration is achievable because it is possible to define principles that anyone could agree with, and the capability to do or to be what each one values is one of these principles. Notwithstanding, we understand the complexity of the social phenomena and encourage justice theorizers to explore different contexts that could lead to exciting perspectives of what value is in each case from several angles.

Our thesis's two main practical contributions relate to public policy and jurisprudence. The former encourages policymakers to develop governance systems, rules, laws, and legislations that account for the capability of everyone to do or to be what they value, but most importantly, that these rules, laws, and legislations are created with the impacted participants, so they can feel that an agreement was achieved. At the same time, they are responsible for implementing the governance.

In the jurisprudence area, jurists can have a fruitful debate on the definition of the responsibility of the governance maker, but only if they can get rid of the contractarianism world and explore the possibility that the governance maker, as a behavioral influencer, should be accountable for the behavior they influence. Defining when the behavior is the responsibility of the governance marker or the participant, the simple answer is to ask if the governance market also has a process that allows the capability for participants to “truly” influence the governance system.

Finally, we contribute to improving the SDGs (UNITED NATIONS, 2015). For example, SDG 4 asks for inclusive and equitable quality education, but as we said, equitable may mean good or bad education for all. Indicator 4.1.2 is the completion rate, but as our first glimpse on justice theories may indicate from a contractarian perspective, if everyone agrees with the completion rate, we have a fair agreement, but we argue that the right question is, how does completion rate can provide the capability for an individual to do or be what they value? If they value the completion rate, that would be fine, but if they value becoming an astronaut, are we going in the right direction with a completion rate as the target?

Another example is SDG 5, related to gender equality, and we can cite indicator 5.4.1, about “Proportion of time spent on unpaid domestic and care work, by sex, age, and location.” First, lower or higher is better? Second, how does this indicator help women to achieve the capability to do or to be what they value? The capability to achieve what women value and control their environment may be more relevant than time spent on unpaid domestic work.

The SDG 8 deal with decent work for all, and the first target is sustaining per capita economic growth and the GDP per capita as the primary indicator. Nevertheless, if we want to deal with individuals' quality of life and capability, GDP may not be the best indicator (NUSSBAUM; SEN, 1993; STIGLITZ; SEN; FITOUSSI, 2010). In the same goal, indicator 8.8.1 measures fatal and non-fatal occupational injuries per 100.000 workers. How do we trust this metric if workers are not workers anymore, now they are entrepreneurs? Ultimately, how does this metric help identify if individuals are achieving what they value?

Finally, SDG 16 incentivizes the building of effective, accountable, and inclusive institutions, and target 16.3 indicates we should promote the rule of law, but are those rules fair at first? Are those rules allowing individuals to do or be what they value? Alternatively, they are just part of the biopolitics of our time (FOUCAULT, 1997).

## **6.1 Limitations and recommendations for future research**

As Montesquieu (2019) said, “a truly virtuous man would come to the aid of the most distant stranger as quickly as to his friend. If men were truly virtuous, they wouldn’t have friends” because having friends may bias our behavior. We can partially use this sentence to argue that the JBG model developed in this thesis, by no means, must be considered virtuous, and I am not a friend of it. In truth, I am eager to see or read how other researchers can criticize, discredit, or, why not, improve it in ways that I cannot imagine.

The JBG model was developed based on a theoretical-empirical approach using delivery platforms as cases, but further research can evaluate other contexts that can clarify how the capability and procedural justice will vary.

We followed a qualitative approach using interviews, but to reach statistical significance, we must develop a quantitative approach that can deal with the capability and procedural justice dimensions satisfactorily, which we encourage other researchers to attempt.

Inter-organizational governance uses contractual and relational governance mechanisms (ROEHRICH *et al.*, 2020). In both cases, our JBG model predicts that contractual or relational governance will be fair if participants can change the governance or it increases the capability of participating firms to achieve what they value. Being trapped in unfair inter-organizational contractual or relational governance may lead to opportunistic behaviors. We encourage further research on opportunistic behavior based on unfair inter-organizational relationships, mainly because inter-organizational researchers may be trapped in the view of fairness as the fair distribution of outcomes in relation to inputs (GASSENHEIMER; HOUSTON; DAVIS, 1998).

The SLR on governance identified seventeen governance models (see APPENDIX C – GOVERNANCE SYSTEMATIC LITERATURE REVIEW), and each one can use our JBG to improve these governance models in different contexts. We provoke researchers to further explore these governance models and context in the light of a JBG perspective.

As a justice model, we believe that other areas can explore how the model fits, for example, in the topic of decentralized autonomous organizations (DAO) or ethics on artificial intelligence. How can DAOs provide a democratic environment that allows people the

capability to achieve what they value and the process of change that involves each participant? In the case of artificial intelligence, would it be possible to develop a governance framework for artificial intelligence that considers users' and non-users capability to achieve what they value while remaining open to changes as the negative externalities show up?

Any theory that explains a phenomenon can be used in different ways. Our data show that couriers believe they are free because the job offers flexibility, but they need to work 13 hours a day, and restaurateurs believe they are free to raise prices not to get losses, but they do not because customers would not buy, so, they are not free. The perception of freedom looks like it has the same effect as real freedom, and we cannot measure if the difference exists. Institutions and organizations could use this perception of freedom to conceal governance systems that use the 'reflective equilibrium' and put the responsibility of the behavior back on the shoulders of the participants, like the biopolitics of Foucault (2008). To avoid this dark side of our JBG model, we encourage more studies to identify how to avoid the kind of control that provides a feeling of freedom for participants without providing it.

All the topics discussed in this thesis can be explored in several areas, but we would like to explore some questions that can lead to exciting research, at least from our perspective. Table 17 presents some of these questions.

Table 17 - Suggestions of future research questions

Possible future research questions
1. How are new technologies, such as artificial intelligence, IoT, and blockchain, restricting or denying capabilities?
2. How do we design governance models that account for the capability of individuals to do or to be what they value and change the governance as capabilities change over time for new and old technologies?

- 
3. How is disseminating fake news restricting or denying people's capabilities to do or be what they value?
  4. If firms want to maximize profit, and some operations use contracts that increase costs, per the Transaction Cost Economics theory, could the capability approach build a fair system that everyone trusts and can agree with, reduce contract complexity and, consequently, costs?? (Opportunism is an element to add to the JBG model.)
  5. Could a fair governance system, or JBG, be a valuable, rare, inimitable resource an organization could use to create a competitive advantage?
  6. From an entrepreneurial perspective, how are entrepreneurs becoming trapped in investment contracts that restrict freedom to create and foster exponential growth, to deliver value during exit moves, and only for investors?
  7. How do monopolist platforms, such as Facebook or Google, capture value created by firms because there are no similar advertising alternatives?
  8. What are the limits of responsibility? One thing is when workers have a direct physical risk. Nevertheless, how must governance makers also be responsible for the psychological risks to implement a safe social web, providing resources needed for work?
- 

Source: Author (2023)

Future research opportunities are endless; choose wisely and work freely.

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## ANNEX A – SUBSTANTIATED EVALUATION OF THE CEP

UNIVERSIDADE DO VALE DO  
RIO DOS SINOS - UNISINOS



### PARECER CONSUBSTANCIADO DO CEP

#### DADOS DO PROJETO DE PESQUISA

**Título da Pesquisa:** Uma abordagem de governança baseada em justiça para ecossistemas baseados em plataformas

**Pesquisador:** Rovian Dill Zuquetto

**Área Temática:**

**Versão:** 2

**CAAE:** 61831022.2.0000.5344

**Instituição Proponente:** Universidade do Vale do Rio dos Sinos - UNISINOS

**Patrocinador Principal:** Financiamento Próprio

#### DADOS DO PARECER

**Número do Parecer:** 5.704.561

#### Apresentação do Projeto:

O Projeto de Pesquisa intitulado “UMA ABORDAGEM DE GOVERNANÇA BASEADA EM JUSTIÇA PARA ECOSSISTEMAS BASEADOS EM PLATAFORMAS”, é proposto pelo doutorando Rovian Dill Zuquetto, do PPG em Administração, orientado pela Profa. Dra. Bibiana Volkmer Martins.

E tem como objetivo geral “Propor uma estrutura empírica e teórica de governança baseada na justiça para melhorar o desempenho do ecossistema baseado em plataforma”. A pesquisa tem abordagem qualitativa e dedutiva, adotando a estratégia de estudo de casos múltiplos. Serão coletados dados secundários (por ex. relatórios das plataformas) e dados primários através de entrevistas com gestores de empresas de plataforma que decidem participar ou não da plataforma. Também é apresentado um questionário a ser aplicado sobre Medição da Justiça, visando a validação dos construtos do modelo teórico do estudo.

#### Objetivo da Pesquisa:

Os objetivos, geral e específicos, denotam adequação em sua formulação.

#### Avaliação dos Riscos e Benefícios:

Riscos, manejo dos riscos e benefícios adequadamente indicados em todos os documentos.

**Endereço:** Av. Unisinos, 950 - Ramal 3219

**Bairro:** Cristo Rei

**CEP:** 93.022-000

**UF:** RS

**Município:** SAO LEOPOLDO

**Telefone:** (51)3591-1122

**Fax:** (51)3591-3219

**E-mail:** cep@unisinos.br



Continuação do Parecer: 5.704.561

**Comentários e Considerações sobre a Pesquisa:**

Projeto consistente, com temática relevante e compatível como nível acadêmico do pesquisador. Projeto bem estruturado, com clareza teórica e metodológica.

Os critérios de inclusão e de exclusão das empresas e dos participantes estão bem descritos. Os instrumentos de coleta de dados estão apresentados com adequação, sendo indicado que as entrevistas poderão ser realizadas de forma presencial física ou de forma remota.

**Considerações sobre os Termos de apresentação obrigatória:**

O TCLE está redigido com clareza, apresentando todas as informações necessárias.

Não são apresentadas Cartas de Anuência das empresas, sendo que o pesquisador justifica: "Ainda não temos a carta de anuência de nenhuma das empresas que se pretende investigar, contudo a participação da empresa não é pré-requisito para a condução da pesquisa. Para esclarecer este ponto foi adicionado o seguinte texto na sessão método: 'Nos casos em que as empresas se recusarem a participar, independente das razões, serão apenas coletados dados com os participantes das plataformas, que em plataformas de inovação são considerados desenvolvedores terceiros e independentes, e nos casos de plataformas transacionais, são considerados autônomos. Para estes participantes será utilizado o TCLE como documento base.' Caso as empresas venham a nos fornecer as Cartas de Anuência, estaremos inserindo as mesmas na Plataforma Brasil antes de realizar quaisquer coletas de dados."

**Recomendações:**

Não há.

**Conclusões ou Pendências e Lista de Inadequações:**

O pesquisador justifica sua decisão de não apresentar anuência das instituições com as quais pretende interagir. Compromete-se, do contrário, a inserir os documentos, caso sejam obtidos. Para esta situação, portanto, indica-se o envio de notificação a este CEP, informando tal ação.

**Considerações Finais a critério do CEP:**

Conforme "Parecer Consubstanciado do CEP", o projeto está aprovado (neste parecer encontrará o número de aprovação). Acesse a Plataforma Brasil e localize o TCLE aprovado e carimbado, em folha timbrada. É obrigatório o uso desse TCLE para reproduzir cópias e entregar aos participantes da coleta de dados. Instruções para localização do TCLE aprovado: Na aba "Pesquisador", clicar na lupa da coluna "Ações", em "Documentos do Projeto de Pesquisa", na Árvore de Arquivos, expandir

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**Bairro:** Cristo Rei

**CEP:** 93.022-000

**UF:** RS

**Município:** SAO LEOPOLDO

**Telefone:** (51)3591-1122

**Fax:** (51)3591-3219

**E-mail:** cep@unisinos.br

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as pastas totalmente, com as setas apontadas para baixo, até encontrar TCLE/Termos de Assentimento, clicando encontrará TCLE aprovado (em pdf), data 17/10/2022. Dúvidas, faça contato com Adriana Capriolli, 51- 3591-1122 ramal 3219.

**Este parecer foi elaborado baseado nos documentos abaixo relacionados:**

Tipo Documento	Arquivo	Postagem	Autor	Situação
Informações Básicas do Projeto	PB_INFORMAÇÕES_BÁSICAS_DO_PROJETO_1937339.pdf	16/09/2022 13:51:35		Aceito
Recurso Anexado pelo Pesquisador	Carta_resposta_parecer_CEP_Rovian_Dill_Zuquette.docx	16/09/2022 13:51:06	Rovian Dill Zuquette	Aceito
Projeto Detalhado / Brochura Investigador	Projeto_Rovian_Dill_Zuquette.docx	16/09/2022 13:49:38	Rovian Dill Zuquette	Aceito
TCLE / Termos de Assentimento / Justificativa de Ausência	TCLE.docx	16/09/2022 13:49:20	Rovian Dill Zuquette	Aceito
Folha de Rosto	folhaDeRosto_Rovian_Dill_Zuquette.pdf	08/08/2022 18:58:50	Rovian Dill Zuquette	Aceito
TCLE / Termos de Assentimento / Justificativa de Ausência	TCLE_RovianDillZuquette.pdf	17/10/2022 14:09:35	Cátia de Azevedo Fronza	Aceito

**Situação do Parecer:**

Aprovado

**Necessita Apreciação da CONEP:**

Não

SAO LEOPOLDO, 17 de Outubro de 2022

**Assinado por:**  
**Cátia de Azevedo Fronza**  
**(Coordenador(a))**

**Endereço:** Av. Unisinos, 950 - Ramal 3219  
**Bairro:** Cristo Rei **CEP:** 93.022-000  
**UF:** RS **Município:** SAO LEOPOLDO  
**Telefone:** (51)3591-1122 **Fax:** (51)3591-3219 **E-mail:** cep@unisinos.br

## APPENDIX A – ESSAY ON JUSTICE

Theories of justice have different perspectives on what justice is. Some will start the debate on virtue, while the most recent will discuss liberty. To know if society, or even an agreement between people, is fair, we need to understand how values are distributed, including income, wealth, duties and rights, power and opportunity, jobs and honors. Of course, a fair society will try to distribute all this in the right way, giving each individual what they deserve, but first, we need to understand what each one deserves (SANDEL, 2020).

The utilitarian view of justice started with Jeremy Bentham (1843), who defined right and wrong as related to evaluating the greatest happiness of the greatest number. Adding all the benefits or pleasures – the concept of happiness for Bentham – and subtracting the pain of all involved individuals, we have a number that will lead to the decision about the action to be taken.

The most evident problem with the utilitarian view of justice is that it does not respect individual rights but the rights of the majority. For example, throwing Christians to the lions in Rome increased the total happiness of the coliseum's audience; even with the cost of the pain of some Christians, the final math gives a positive increase in happiness.

The second problem with utilitarianism is that everything needs to be evaluated in the same coin to add happiness and subtract pain, which means deciding a price on humans' lives (SANDEL, 2020). During the 70s' the Ford Pinto was one the most sold cars in the USA. However, the fuel tank could explode in an accident involving rear collisions, causing death and injuries to drivers and passengers. When one of the victims sued Ford, it came to the public that Ford had made utilitarian math to decide about the problem. They could fix all the cars at a total cost of US\$ 137,5 million or pay US\$ 49,5 million for deaths and injuries considering the statistics of 180 deaths and 180 injuries at the individual cost of US\$ 200 thousand per death and US\$ 67 thousand per injury (DOWIE, 1977)

To save utilitarianism, John Stuart Mill (1859) changed its principle, considering that everyone is free to do whatever they want, except to harm others. Thus, individuals will need to only explain their acts in front of society if their actions affect others. However, Mill takes some steps further from the utilitarian view of justice and adds morality to their theory, starting a movement toward libertarianism.

Liberalism advocates a minimal state that exists to enforce contracts, protect private property, and maintain peace. Anything beyond these is illegitimate and violates liberty.

Libertarians reject paternalism, moral legislation, and no income and wealth distribution. The authors on this stream respect the individual choices in the free market (FRIEDMAN, 2002; HAYEK, 1978).

One of these authors is Nozick (1991) that argues that distributive justice must meet two conditions, justice in acquisition and justice in the transfer. Both conditions evaluate if the origins of the wealth are legitimate. However, the author also states that it may be hard to identify if the capital that originates a person's wealth or family came from lawful sources.

Laws that interfere in the free market violate individual liberty; however, the free market may not be as free as some argue, especially for people with few alternatives (SANDEL, 2020). For example, India has become the place where some couples that want a child goes to outsource pregnancy, while a couple can expend more than US\$ 200.000 in their home countries, like the US or UK, in India the price is less than US\$ 20.000 (BINDEL, 2016; DOLNICK, 2007). Are these women free to choose? A wealthy couple would consider selling their child, considering babies as human beings are free should they be treated like products? Although not all decision in the free market is related to human life, it helps us evaluate and consider the market failures and improve liberalism to deal with justice issues.

From a libertarian perspective, liberty is all that matters, and the consequences of this line of thought will be almost always positive. However, Immanuel Kant (2007) offers us another perspective: we are rational beings and deserve respect as ends in themselves. Kant argues that justice gives people what they morally deserve, allocating goods to reward and promote equity. Thus, liberty is to have autonomy, acting following a law that I impose on myself.

A child enters a store to buy bread, and the shopkeeper could charge ten times more the price, and the child would never know. The shopkeeper decides not to because if someone discovers, they may have problems with the local neighborhood. According to Kant, the shopkeeper did the right thing for the wrong reasons. For Kant, the reasons are more important, meaning that if someone act with honesty only to preserve their interests, the act does not have moral value. Therefore, the correct reasoning for the shopkeeper not to charge a higher price for the child is because it is not the right thing to do (SANDEL, 2020).

Kant believes that a theory of justice should be based on a social contract, an agreement between persons that live in a society. However, this agreement, which we can call a Constitution, may impose the concept of happiness of some part of the society to the other, and this should not happen. Moreover, this contract is imaginary, and the simple fact that a group

of people creates the Constitution does not mean that it is fair. To avoid these issues is necessary an idea of reason where “every legislator to give his laws in such a way that they could have arisen from the united will of a whole people and to regard each subject, insofar as he wants to be a citizen as if he has joined in voting for such a will.”. This imaginary act of collective consensus is the test of legitimacy for all public laws. If the whole society could not consent to the law, it is unjust (KANT; WOOD, 2016, p. 296).

Even though some people do not have to participate in creating the constitution or do not agree with it, John Locke (1994) understands that anyone receiving benefits of a government consents to obey the law. Being this implicit consent of Locke or the hypothetical agreement by Kant is fair or not, John Rawls (1971) offers a different perspective and argues that we should understand justice by evaluating which principles we would agree on if we all start in an equity situation.

Justice as fairness is the concept that Rawls (2004) uses to consider creating the hypothetical contract in society. To guarantee equanimity, the principles of justice should be chosen behind a veil of ignorance, where people ignore their position in society, strengths and weaknesses, values, and objectives, and no one has an advantage or can bargain in a favorable position.

Rawls (1971) sees two principles of justice rising. The first one related to basic rights and duties, avoiding a utilitarian view, protecting us from religious persecution or racial discrimination, and guaranteeing freedom of consciousness and thoughts. The second principle would deal with social and economic inequalities. Under the veil of ignorance, we do not know in which portion of the society we would start. That would lead to the difference principle: only social and economic inequalities that benefit the least well-off members of society would be allowed. This principle would avoid the libertarian view where the division of wealth would be arbitrarily divided and concentrated in the hands of few.

We can use the difference principle to evaluate the higher salary of a medic. If this difference increases the collective wellbeing, promoting more medics and better assistance for the poor, it would be fair to pay higher wages for this professional. However, if the higher medics' salaries do not increase the health services in regions in need but increase the number of plastic surgeons in a big city, the salary difference would not be justifiable and consequently unfair (SANDEL, 2020).

We can evaluate four distributive theories of justice (RAWLS, 1971; SANDEL, 2020):

- a) Feudal system or caste: established hierarch based on blood ties;
- b) Libertarian: a free market with equality of formal opportunities;
- c) Meritocracy: a free market with equality of fair opportunities; and
- d) Egalitarian: Rawls difference principle.

According to Rawls (1971), the first three base the distribution in arbitrary factors from a moral perspective, considering birth, social and economic position, or natural skills and abilities. By moral, we understand as the individual evaluation of how right or wrong is to perform a behavior (AJZEN, 1991; ARMITAGE; CONNER, 2001), and distributive justice have no relation to reward moral merit, although Rawls recognizes that separate the merit from debates about justice is challenging.

Distributive justice tries to answer the legitimate expectations of individuals, but only when the rules of the game, or the system, are established. If we define that any tax that the government applies to wealthy people is a kind of thief, then our legitimate expectation is not to be taxed. However, suppose the system's rules define that government can tax fortunes and high-income individuals to help the less-favored. In that case, they cannot complain of deprivation of something they deserve. We cannot be guilty of our society valuing certain things, talents, or skills (RAWLS, 1971).

Affirmative action privileges minorities to enter the university, using race and ethnicity as reasons to a) correct standardized tests, b) compensate for errors from the past, and c) promote diversity. These arguments have no relation with moral merit but with the university's mission, which may or may not define its mission as have the diversity of students, which establishes the qualities that count, meaning that no rights were violated (SANDEL, 2020).

However, it is impossible to dissociate the distinction between moral desert and legitimate expectation of John Rawls (1971) and Ronald Dworkin (2014) from justice arguments. It holds because there is the belief that a good job and the best opportunities are rewards to those that deserve it. For this reason, the debates about distributive justice are not only about who deserves what but also which qualities and skills are deserving of honors and awards (SANDEL, 2020).

From libertarian, through Kant and Rawls, theories of justice have been trying to separate justice from merit, honor, and virtue. This attempt has a reason, avoid concepts that may have different and divergent meanings for person-to-person. The intention is to better deal with distributive justice, or at least fairer distribution, using fundamentals of justice and rights that are neutral concerning different notions about a good life (SANDEL, 2020).

Now we come back in time, although we try to advance in our knowledge about justice. For Aristotle (2015), justice is about giving people what they deserve, their due, fitting people, and their virtues to their social roles. To determine a fair distribution of something, we need to find the purpose, or the telos, of the good at distribution. Define the telos is essential to determine the criteria under which we will make the distribution.

For example, the purpose of the best violin in the world is to be well played, so who deserves it? The person that has more money to buy it, or the best violin player in the world. According to Aristotle's view of justice, the violin goes for the people with the higher virtue in playing the violins because it is the way to reward the best violin player (SANDEL, 2020).

At this point, Aristotle (2017) elaborates on how politics can form good citizens and promote good ethos. According to Aristotle, the purpose of politics is not to satisfy the majority's preferences but to cultivate the citizens' virtue, and these citizens will take care of the communities' destinies. With time and practice, the citizen involved in political activities will develop better decisions and judgments. The end of a city or polis is a good life, and the institutions of social life, such as family, friends, and politics, are means to that end

However, the modern theories of justice do not accept very well Aristotle's notion of fit. Aristotle's (2015) theory of justice does not leave much room for freedom. Kant and Rawls understand that the teleological concepts may conflict with notions of justice because if a virtuous citizen can decide the telos of activity and who has the virtue to make that activity, then I may not be free to choose my role in the society. If I am not free to choose my role in society, I may be forced to accept a role against my will (SANDEL, 2020).

On the other hand, the ethics of the telos may be less restrictive than liberal ethics. For example, work for many hours in a poultry slaughter factory line may be exhaustive and dangerous, and we can raise the question, is this fair work? From a libertarian perspective, if there is a free choice in exchange for salaries, the work is fair. For Rawls, we need to use the veil of ignorance to establish the fair conditions of negotiation. However, for Aristotle, not even consent under fair conditions is enough. The work will be fair only if it fits with the worker's nature (SANDEL, 2020). Making a timely connection, may platform workers fit in a platform work, and are they free to choose?

Aristotle (2015) also makes some statements about the fairness of distribution because he understands that all distributive theories will discriminate. What we need to question is which discriminations are fair? The answer to this question will depend on the purpose of the activity in the debate. Aristotle brings to our debate the telos of what we are debating. Most

discussion on justice revolves around the purpose of social institutions, family, government, firms, platforms, the assets and wealth these institutions create, and the virtues they value and reward (SANDEL, 2020). Although justice attempts to operate in neutrality, it may not be possible, and the telos of what is freedom and a good life need to enter into the debate. With this definition in hand, it may be possible to develop a fair framework of rights so citizens can pursue their conceptions of a good life for themselves.

Now let us explore an issue related to bias related to justice. Imagine two children drowning in a lake; one of them is your son or daughter; which one would you save? There is any kind of feelings involved? If you were in charge of bombing your hometown, what would be your decision in a civil war? There is any obligation of solidarity or membership with the citizens or friends who still live in the city? As Aristotle pointed out, which discrimination would be fairer?

Alasdair MacIntyre (2021a) believes that we are the stories that we hear and tell. As a society member, a group, or a family, our moral values are intrinsically related to the narratives we live. For these reasons, the questions related to justice decisions are tied to bounds of many kinds, which will lead to loyalty to different actors. Which leads us to save our child, fight for our country, or not attack our hometown.

We cannot search the good or practice virtue only as individuals (MACINTYRE, 2021a). Social dilemmas are related to others and influence our decision about the good life, but most importantly, about our decision about what is fair or unfair. Three categories of moral responsibilities can arise: a) natural duties, universal that does not require consent; b) voluntary, particular and require consent; and c) solidarity obligations, particular and do not require consent (SANDEL, 2020).

These moral responsibilities indicate that we need to recognize that our story is connected and will influence the story of other individuals in a way or another. The solidarity that we have with a group is a kind of bias in favor of that group. As Alastair MacIntyre pointed out, our moral rule results from the community that we live. Pluralistic societies will have a different conception about a good life, which may explain why it may be so hard to identify the telos of a good life or even freedom.

The theories of Kant and Rawls are the most advanced attempts to separate moral and religious issues from politics and laws, but, according to Sandel (2020), this may be a mistake. Debate public issues faking neutrality can result in policies without moral substance and poor civic life. Moral issues shape what we consider fair or unfair related to our and other individual's



life. As Montesquieu (2019) said, “a truly virtuous man would come to the aid of the most distant stranger as quickly as to his friend. If men were truly virtuous, they wouldn’t have friends”, which looks unrealistic in real life.

Now we reach the point where we can question whether it would be possible to debate what a good life is, since a clash of opinions seems inevitable? Rawls gives us a partial answer to this question. In his book, *A Theory of Justice*, he develops a method called ‘reflective equilibrium’ to debate and arrives at the content of the principles of justice (RAWLS, 1971). However, as we already noted, we should also debate the telos of a good life because they are inseparable from concepts like honor, virtue, pride, and recognition. Thus, justice is not only about the right distribution but also the right way to evaluate things (SANDEL, 2020).

According to Rawls (1971, p. 18),

“By going back and forth, sometimes altering the conditions of the contractual circumstances, at others with-drawing our judgments and conforming them to principle, I assume that eventually we shall find a description of the initial situation that both expresses reasonable conditions and yields principles which match our considered judgments duly pruned and adjusted. This state of affairs I refer to as reflective equilibrium.”

This process allows the actors involved to revise their beliefs and adjust accordingly to others' beliefs. This interplay promotes achieving consensus and promotes rules, policies, and judgments in a fairer way. However, this process must be based on mutual respect; otherwise, the participants will not be open to listen, learn, and improve their own beliefs (SANDEL, 2020) related to implementing improved mechanisms and practices.

At this point, we can raise some issues related to BPE, especially considering that because someone consent to participate in a PBE, it does not mean that the agreement or the contract, hypothetical or real, is fair. For example, even under all involved actor’s consent, suppose the agreement does not consider an equitable distribution of the value created. In that case, we may have a situation of unfair distribution of outcomes. Not only that, even with a contract, some moral questions may arise, like if the distribution is morally correct considering that platform workers may need to work in poor condition and with low-income results.

Important to note that fairness and justice are used as synonyms, and we will use both interchangeably in this essay. Fairness is part of justice theories and contemplates distributive, procedural, interpersonal, and informational fairness/justice, and all then have a role in the negotiation of alliances. According to Carnahan et al. (2010), two main issues related to the

critical incidents during negotiations, the fairness of the proposed governance structure, and the perception of fairness, arise from the interaction between the parties.

The regulation of the incentive structures is a success factor for value capture because they protect the agreement's fairness. However, fairness is not automatic, and parties need time to evaluate the fair distribution of profits over time (SJÖDIN *et al.*, 2020), which in the future may lead to the end of the alliance.

Fairness may depend on each individual and society. For example, more individualistic societies may find fair that the PBE owner keeps a considerable part of the income generated by all the users. On the other hand, some may consider that meritocracy should give a higher share to the more committed ones. While others may adopt a collective view where the income should be shared using some equity measure (LUND; SCHEER; KOZLENKOVA, 2013).

The context where justice is evaluated has high relevance, mainly because each culture may present itself as more individualist or collective spectrum, indicating that the measures to assess fairness may depend on society and its individuals' position in this continuum. How individuals perceive opportunities and threats in their environment may increase uncertainty avoidance strategies, like formalize rules and design regulations, which increase the importance of distributive and procedural fairness (LUND; SCHEER; KOZLENKOVA, 2013).

Procedural fairness, the perceptions about the fairness of formal procedures governing decisions (COLQUITT *et al.*, 2001), can be improved if the PBE lead firm is open to the possibility to use reflective equilibrium. The back and forth between PBE lead firms and participants allows the improvement of the rules that will govern the relationship, with the potential to improve governance outcomes and PBE performance and its members.

This essay approach the governance practices and the interplay necessary to improve governance outcomes and PBE performance.



## APPENDIX B – MULTIPLE-CASE STUDY PROTOCOL

### Seção A: Visão geral do estudo de caso

1. Missão e objetivos que refletem os interesses do patrocinador do estudo de caso (se houver) e do público

O objetivo deste estudo é propor um modelo teórico e empírico de governança baseada em justiça para promover a performance das plataformas. O modelo teórico propõe que uma abordagem considerando princípios de justiça distributiva, procedural, interpessoal e informacional podem contribuir para o efeito-rede da plataforma, aumentando a atração de participantes. Este aumento na base de usuários permite criar valor pelo aumento da possibilidade de interação, ou seja, promovendo um maior número de transações em plataformas transacionais, de inovações em plataformas de inovação e em ambos no caso de plataformas híbridas. Será realizado um estudo de casos múltiplo com objetivo de alcançar conclusões entre os casos, permitindo assim refinar a teoria e desenvolver melhores modelos de governança para plataformas, assim como políticas públicas adequadas.

The objective of this study is to propose a theoretical and empirical model of justice-based governance to promote platform performance. The theoretical model proposes that an approach considering principles of distributive, procedural, interpersonal and informational justice can contribute to the network effect of the platform, increasing the attraction of participants. This increase in the user base makes it possible to create value by increasing the possibility of interaction, that is, promoting a greater number of transactions on transactional platforms, innovations in innovation platforms and both in the case of hybrid platforms. A multiple case study will be carried out in order to reach conclusions between the cases, thus allowing to refine the theory and develop better governance models for platforms, as well as adequate public policies.

El objetivo de este estudio es proponer un modelo teórico y empírico de gobernanza basada en la justicia para promover el desempeño de la plataforma. El modelo teórico propone que un abordaje que considere principios de justicia distributiva, procesal, interpersonal e informacional puede contribuir al efecto red de la plataforma, aumentando la atracción de participantes. Este aumento de la base de usuarios permite crear valor aumentando la posibilidad de interacción, es decir, fomentando un mayor número de transacciones en plataformas transaccionales, innovaciones en plataformas de innovación y ambas en el caso de plataformas híbridas. Se realizará un estudio de caso múltiple con el fin de llegar a conclusiones

entre los casos que permitan refinar la teoría y desarrollar mejores modelos de gobernanza para las plataformas, así como políticas públicas adecuadas.

## 2. Perguntas, hipóteses e proposições do estudo de caso

Por meio da abordagem de estudo de caso, esperamos identificar e documentar evidências para a questão: como uma abordagem de justiça pode contribuir para o desenvolvimento de uma estrutura de governança baseada em justiça para plataformas?

Definimos plataformas como plataformas de transação, aquela transação intermediária em um mercado multifacetado, ou como plataformas de inovação, plataformas que promovem o desenvolvimento de inovações e plataformas híbridas, plataformas que promovem inovação e transações intermediárias ao mesmo tempo (CUSUMANO; GAWER; YOFFIE, 2019). Para fomentar a inovação e as transações através da plataforma, são necessárias algumas diretrizes e regras, ou seja, um modelo de governança.

A governança terá como objetivo solucionar desafios relacionados à abertura da Plataforma e ao valor capturado por cada ator (SCHMEISS; HOELZLE; TECH, 2019). Este conjunto de elementos de governança, também chamados de processos sociais, irá gerenciar os complementadores independentes em direção à cocriação de valor (SAADATMAND; LINDGREN; SCHULTZE, 2019).

A implementação adequada dos elementos de governança motivará empresas terceirizadas a aderir e investir na Plataforma. Portanto, torna-se essencial orquestrar o processo de inovação, acesso e interação (SAADATMAND; LINDGREN; SCHULTZE, 2019).

Para desenvolver um modelo de governança que atenda às necessidades dos EBPs, exploramos quatro dimensões: a) a distribuição do valor criado; b) o processo de criação das regras de governança; c) a interação entre os participantes; e d) as informações fornecidas aos participantes. Entendemos que essas quatro dimensões englobam todos os fatores necessários para implementar um modelo de governança adequado aos EBPs e justo para todos os participantes.

Ser justo ou equitativo é dar a cada pessoa o que ela merece (MACINTYRE, 2021b). No entanto, isso é apenas parte da equação. Uma abordagem de governança baseada na justiça (GBJ) deve incluir justiça distributiva, processual, interacional e informacional. Chamamos essas quatro dimensões de "princípios".

Os princípios representam uma diretriz para resolver o problema da interdependência e da incerteza. Por exemplo, princípios como mercado, hierarquia, clã ou autoridade, preço e

norma operam como mecanismos que orientam, habilitam e restringem o comportamento econômico (MCEVILY; PERRONE; ZAHEER, 2003).

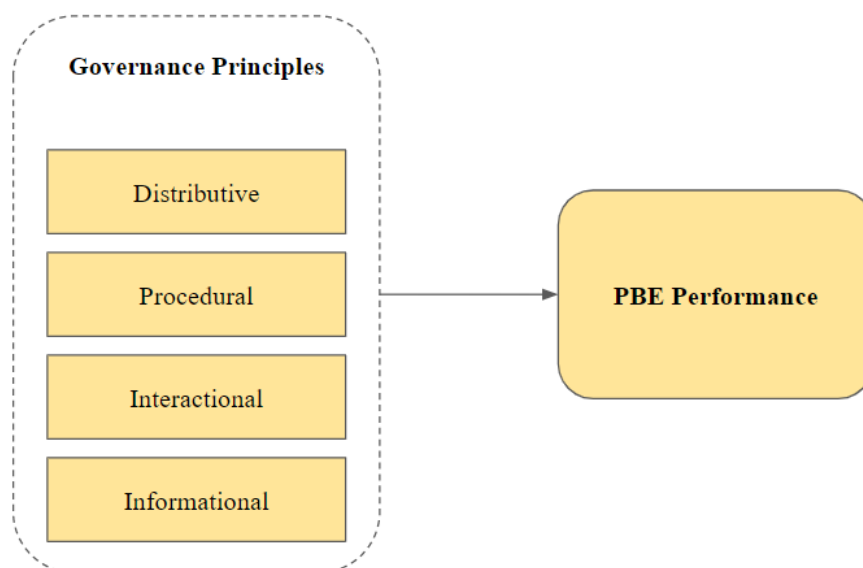
Os casos serão selecionados com base na definição de plataformas de inovação e transação e resultados extremos, de um lado uma plataforma que está crescendo e do outro uma plataforma que não conseguiu crescer de forma consistente ou falhou como negócio. No total esperamos estudar duas plataformas de inovação e duas plataformas de transações.

É importante notar que também precisamos de diversidade dentro da plataforma, entrevistando e entendendo a percepção de justiça para atores que decidem participar da plataforma e atores que decidiram não participar ou abandonaram a plataforma. Entrevistaremos os participantes até atingirmos a saturação das respostas, caso não sejam acrescentadas novas informações devido a novas entrevistas.

O proprietário da plataforma será entrevistado apenas se os documentos não forem suficientes para identificar os constructos distributivo, processual, interpessoal, informacional, crescimento da base de usuários ou número de transações, e coletar dados longitudinais sobre esses constructos.

### 3. Modelo teórico para o estudo de caso

Nossa estrutura de pesquisa é baseada em quatro princípios de justiça, incluindo distributiva (DistJ), processual (ProcJ), interpessoal (InterJ) e informacional (InfJ). Esses princípios podem influenciar o desempenho da plataforma em relação ao crescimento da base de usuários (UserG) e número de transações (NumT).



### 4. Papel do protocolo na orientação do pesquisador do estudo de caso

Este protocolo visa assegurar um procedimento válido de coleta de dados para garantir (a) validade de construto, (b) validade interna, (c) validade externa e (d) confiabilidade para o estudo. O protocolo também promove a replicabilidade do estudo e garante a coleta e comparação de dados de estudos de casos múltiplos (YIN, 2018).

## **Seção B: Procedimentos de Coleta de Dados**

### **1. Nomes de pessoas de contato para fazer trabalho de campo**

Rovian Dill Zuquette

### **2. Plano de coleta de dados**

Entrevistaremos os participantes da plataforma para coletar dados sobre sua percepção sobre justiça distributiva, processual, interpessoal e informacional em relação à plataforma.

Coletaremos dados com a empresa de plataforma para entender a distribuição do valor criado, dados relacionados aos procedimentos que definem a distribuição, as regras interpessoais aplicadas pelas plataformas e informações fornecidas aos participantes. Na medida do possível, o plano é observar como são conduzidos pela plataforma a distribuição de valor, os procedimentos de distribuição, o tratamento interpessoal dos participantes e a divulgação de informações. Em plataformas onde essas dimensões são menos documentadas, podemos entrevistar líderes (por exemplo: CEOs, gestores, etc.) da plataforma para compreender como as dimensões de justiça funcionam informalmente.

Nos casos em que as empresas se recusarem a participar, independente das razões, serão apenas coletados dados com os participantes das plataformas, que em plataformas de inovação são considerados desenvolvedores terceiros e independentes, e nos casos de plataformas transacionais, são considerados autônomos. Para estes participantes será utilizado o TCLE como documento base.

Os pesquisadores realizarão a pesquisa online através de videoconferência ou presencial quando possível, em local ou através de software e horário que façam parte da rotina dos participantes.

### **3. Preparação esperada antes do trabalho de campo**

Apesar de não ser indispensável a aprovação das empresas casos para a condução do estudo, tendo em vista que a maior parte das entrevistas será realizada com os participantes das plataformas que geralmente não possuem contratos de trabalho com o proprietário da plataforma, mas geralmente atuam como autônomos, MEI ou terceiros, consideramos importante obter a aprovação do CEO das corporações que servirão como estudos de caso. Como documento padrão temos a “Autorização da Empresa para Coleta de Dados” que deve

ser assinado para garantir que o pesquisador terá acesso aos documentos e pessoas de dentro da organização, fornecendo tempo e acesso ao contato de terceiros que possam ter alguma relação com a empresa, como fornecedores, clientes e outros.

Também é relevante desenvolver um acordo de confidencialidade para proteger a pesquisa e a firma de qualquer questão relacionada à divulgação de informações, estes termos estão especificados no “Termo de Autorização para Coleta de Dados”.

Para cada pessoa entrevistada será assinado o “Termo de Consentimento Livre e Esclarecido”.

A maior parte da interação será realizada online, exceto quando previamente acordado entre as partes, softwares para realização das videoconferências e gravação já estão disponíveis e foram devidamente testados.

### **Seção C: Perguntas de protocolo**

1. Como o dono da plataforma estabelece regras para compartilhar o valor gerado pelos participantes? (DistJ)
2. Como o proprietário da plataforma envolve os participantes no processo de criação de regras? (ProcJ)
3. Como o dono da plataforma mantém um relacionamento interpessoal justo com os participantes? (InterJ)
4. Como o proprietário da plataforma divulga as informações necessárias para que os participantes sejam informados e tomem melhores decisões? (InfJ)
5. Como está o desempenho dos ecossistemas da plataforma em relação ao crescimento da base de usuários e/ou número de transações? (UserG e NumT)
6. Como os casos se comparam em relação à justiça distributiva, processual, interpessoal, informacional e desempenho?



## 7. Ferramentas de coleta de dados

### GUIA DE ENTREVISTA SEMIESTRUTURADA DO PARTICIPANTE DA PLATAFORMA<sup>7</sup>

<b>VISÃO GERAL DO ATOR</b>			
Plataforma			
Tamanho da plataforma	(número de empregados/receita bruta)		
Ano de fundação			
Nome e organização do entrevistado			
Papel ou posição na plataforma	1. What is your position/relation in/with the platform?	1. Qual seu papel na/relação com a plataforma?	1. ¿Cuál eres su papel em/relación con la plataforma?
Anos na plataforma	2. How long you participate in the platform?	2. Há quanto tempo você participa na plataforma?	2. ¿A cuánto tiempo participa de la plataforma?
<b>PARTE 1: CONHECENDO O ATOR</b>			
EVIDÊNCIA	QUESTION	Questão (em português)	Cuestión (en español)
Background	3. Why do you participate in this platform? 4. Do you participate in any other similar platform? Why not change platform?	3. Por que você participa desta plataforma? 4. Você participa em outra plataforma similar? Por que sim ou não? Por que você não troca de plataforma?	3. ¿Por qué participas en esta plataforma? 4. ¿Participas en otra plataforma similar? ¿Por qué sí o no? ¿Por qué no cambias de plataforma?
<b>PARTE 2: DIMENSÕES DA JUSTIÇA</b>			
CONSTRUTO	QUESTION	Questão (em português)	Cuestión (en español)
Distributive Justice (DistJ)	5. How much effort is needed to get outcomes from the platform? How to increase your outcomes? 6. How is the value distributed among platform participants? Do you believe your outcome is higher or lower in comparison with other participants?	5. Quanto esforço é necessário para conseguir resultados com a plataforma? Como aumentar seus ganhos? 6. Como é feita a distribuição de ganhos entre os usuários da plataforma? Você acredita que seus ganhos são maiores ou menores que outros usuários da plataforma?	5. ¿Cuánto esfuerzo se necesita para obtener resultados con la plataforma? ¿Cómo aumentar tus ganancias? 6. ¿Cómo se distribuyen las ganancias entre los usuarios de la plataforma? ¿Crees que tus ganancias son más altas o bajas que las de otros usuarios de la plataforma?

<sup>7</sup> Este guia foi testado uma vez com uma pessoa que participa de uma plataforma de transações, várias melhorias foram adotadas, perguntas foram eliminadas e alteradas para alinhar com o objetivo do roteiro de entrevista semiestruturado.

	<p>7. Do you understand that something should change related to the outcome distribution? What? How should it change?</p> <p>8. Can you compare your outcomes with other participants of the platform?</p> <p>9. Considering the amount of work that you do and the outcome you receive through the platform, it worth it?</p> <p>10. Are you trying to increase your outcomes from the platform? Why and how?</p> <p>11. Do you expect to leave the platform at some point in time? What is your plan to leave?</p> <p>12. Do you incentivize other people to leave the platform? Why do you believe leave the platform is the right thing to do?</p>	<p>7. Você entende que algo deva mudar em relação à distribuição de resultados da plataforma? O quê? Como você entende que deveria ser?</p> <p>8. Você consegue comparar os seus ganhos com o de outros participantes da plataforma?</p> <p>9. Considerando a quantidade de trabalho e os resultados que você obtém através da plataforma, vale a pena?</p> <p>10. Você vem tentando aumentar seus ganhos na plataforma? Por que e como?</p> <p>11. Você pretende sair da plataforma em algum momento? Como você planeja esta saída?</p> <p>12. Você incentiva outros a saírem da plataforma? Por que você entende que sair da plataforma é a coisa certa a se fazer?</p>	<p>7. ¿Entiende que algo debería cambiar con relación a la distribución de resultados de la plataforma? ¿Qué? ¿Cómo debería ser?</p> <p>8. ¿Puedes comparar tus ganancias con las de otros participantes en la plataforma?</p> <p>9. Teniendo en cuenta la cantidad de trabajo y los resultados que obtienes a través de la plataforma, ¿vale la pena?</p> <p>10. ¿Ha estado tratando de aumentar sus ganancias en la plataforma? ¿Porque y cómo?</p> <p>11. ¿Piensas abandonar la plataforma en algún momento? ¿Cómo planeas esta salida?</p> <p>12. ¿Animas a otros a abandonar la plataforma? ¿Por qué entiende que dejar la plataforma es lo correcto?</p>
Procedural Justice (ProcJ)	<p>13. Did the platform have a procedure that explain how the outcomes are distributed? Do you have a role in the creation of this procedure? Which doubts you have about it?</p> <p>14. Which participants have the most to gain from the platform? Why?</p> <p>15. Which material or resource the platform provides to help you to achieve better outcomes?</p> <p>16. Can you or other participant influence the distribution of the value generated? Do you believe you should have this opportunity? Why?</p>	<p>13. A Plataforma tem um procedimento que explica como os resultados são distribuídos? Você teve algum papel na elaboração desse procedimento? Você tem dúvidas sobre o procedimento?</p> <p>14. Quais dos participantes tem mais a ganhar com a plataforma? Por quê?</p> <p>15. Que tipo de material ou recurso a plataforma disponibiliza para ajudar você a ter melhores resultados?</p> <p>16. Você ou outro membro tem como influenciar a distribuição do valor gerado? Você acha que deveria ter a oportunidade de influenciar? Por quê?</p>	<p>13. ¿La Plataforma cuenta con un procedimiento que explique cómo se distribuyen los resultados? ¿Tuviste algún papel en el diseño de este procedimiento? ¿Tienes dudas sobre el procedimiento?</p> <p>14. ¿Cuál de los participantes tiene más que ganar con la plataforma? ¿Por qué?</p> <p>15. ¿Qué tipo de material o recurso pone a tu disposición la plataforma para ayudarte a conseguir mejores resultados?</p> <p>16. ¿Usted u otro miembro puede influir en la distribución del valor generado? ¿Crees que deberías tener la oportunidad de influir? ¿Por qué?</p>
Interpersonal Justice (InterJ)	<p>17. What are the biggest challenges you are facing in the platform (ask examples)? Can you remember a problem that you had in the platform? Which problem and how it was solved?</p> <p>18. Which improvement suggestion do you have for the platform?</p> <p>19. Have you ever felt disrespected by the platform? Why?</p>	<p>17. Quais os maiores desafios que você vem enfrentando dentro da plataforma (pedir exemplos)? Você lembra de algum problema que teve na plataforma? Qual problema e como foi resolvido?</p> <p>18. Que sugestões de melhorias você teria para a plataforma?</p> <p>19. Você alguma vez se sentiu desrespeitado pela plataforma? Por quê?</p>	<p>17. ¿Cuáles son los mayores desafíos a los que se ha enfrentado dentro de la plataforma (pida ejemplos)? ¿Recuerdas algún problema que tuviste en la plataforma? ¿Qué problema y cómo se resolvió?</p> <p>18. ¿Qué sugerencias de mejora tendría para la plataforma?</p> <p>19. ¿Alguna vez te has sentido irrespetado por la plataforma? ¿Por qué?</p>

Informational Justice (InfJ)	20. How the information that you receive from the platform help you to increase outcomes? 21. Which additional information do you believe would be valuable to make your work better? 22. There are constant changes in the platform? How much time it takes to know about those changes? 23. Do you believe that the platform hides something from you? What? Why do you believe this happens?	20. Como as informações que você recebe da plataforma lhe ajudam a ter melhores resultados? 21. Quais informações adicionais você entende que seriam valiosas para melhorar o seu resultado? 22. Ocorrem mudanças constantes na plataforma? Quanto tempo leva para você saber destas mudanças? 23. Você acredita que a plataforma esconde algo de você? O que? Por que você acha que isso acontece?	20. ¿Cómo te ayuda la información que recibes de la plataforma a lograr mejores resultados? 21. ¿Qué información adicional cree que sería valiosa para mejorar su resultado? 22. ¿Hay cambios constantes en la plataforma? ¿Cuánto tiempo le lleva enterarse de estos cambios? 23. ¿Crees que la plataforma te esconde algo? ¿Qué? ¿Por qué crees que esto ocurre?
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Documentos a serem acessados a partir de plataformas quando disponíveis e necessários:

- a. Dados relacionados ao crescimento da base de usuários dos vários lados da plataforma (UserG)
- b. Dados relativos ao número de transações realizadas através da plataforma (TransacN)
- c. Receita (Balanço, DRE) (UserG e NumT)

Identificar e coletar evidências relacionadas aos processos da plataforma:

- d. Distribuição do valor criado entre o proprietário da plataforma e os participantes da plataforma. Quanto cada participante recebe por sua participação na plataforma e quanto a plataforma retém? (DistJ)
- e. Os processos de distribuição são inclusivos, podem ser influenciados pelos participantes, são livres de preconceitos, são considerados justos. Alguns ou todos os participantes podem influenciar no processo que define quanto é distribuído para cada participante ou a plataforma toma as decisões sozinha? (ProcJ)
- f. Como os participantes são tratados. Eles são ouvidos, seu feedback é usado para fazer mudanças na plataforma, algoritmos são usados para equilibrar o horário de trabalho ou aumentar o tempo de trabalho? (InterJ)
- g. Comunicação, explicação de procedimentos, alterações, especificidade. As pessoas são bem comunicadas sobre as regras e procedimentos, é fácil de entender, todos recebem as informações em tempo hábil, a comunicação se adapta às necessidades individuais? (InfJ)

## **Seção D: Esboço Provisório para o Relatório de Estudo de Caso**

1. Público(s) para o relatório e preferências estilísticas para comunicação com o(s) público(s)
  - a. Público acadêmico interessado em entender se o uso da justiça distributiva, processual, interpessoal e informacional pode influenciar o desempenho de uma plataforma.
  - b. Público de proprietários de plataformas tentando entender se princípios justos podem afetar o desempenho dos negócios.
  - c. Público de empreendedores de modelo de negócio de plataforma tentando alavancar uma nova plataforma no mercado que possa perceber a justiça como um fator relevante para o desempenho do novo empreendimento.
  - d. Público de formuladores de políticas públicas que deseja entender melhor como as políticas públicas desenvolvidas de forma justa podem melhorar os participantes da plataforma sem impactar o desempenho do proprietário da plataforma.
2. A prática distributiva, processual, interpessoal e informacional em operação
  - a. Elabore tabelas, e sempre que possível gráficos, para mostrar como os diferentes casos funcionam em relação aos quatro princípios da justiça.
3. Desempenho da prática
  - a. Avalie como as plataformas com diferentes princípios de justiça se comportam em relação ao crescimento de sua base de usuários e volume de transações.
4. Resultados da prática até o momento
  - a. Como nosso modelo sugere, esperamos que as plataformas que adotam uma abordagem mais justa atraiam participantes de forma consistente, o que significa que o desempenho, em relação ao crescimento da base de usuários e número de transações realizadas na plataforma, pode estar correlacionado com a equidade da distribuição, procedimentos, princípios de interação e informação, formal ou informalmente definidos pela empresa da plataforma.
5. Contexto e histórico de ecossistemas baseados em plataforma relativos à prática
  - a. Sempre que possível e disponível o objetivo é mostrar como as dimensões da justiça mudaram e se houve algum impacto no desempenho da plataforma. Esse entendimento é relevante porque à medida que a plataforma aumenta em número de participantes ou transações, atinge o efeito rede (BOUDREAU, 2012), onde o volume de participantes e transações é o que cria valor, e o dono da plataforma pode mudar os princípios de justiça sem afetar o desempenho.

6. Anexos a serem desenvolvidos: cronologia de eventos cobrindo a implementação e resultados da prática neste local, modelo lógico para a prática, matrizes para apresentação de resultados e outros dados, referências a documentos relevantes e lista de pessoas entrevistadas
7. O relatório do estudo de caso passará por um procedimento de validação. Como forma de melhorar a qualidade do estudo de caso e garantir sua validade de construto, os rascunhos dos estudos de caso serão revisados por aqueles que foram sujeitos do estudo. (YIN, 2018).

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## APPENDIX C – GOVERNANCE SYSTEMATIC LITERATURE REVIEW

### 1 Shared governance

The first paper on the LR is from 1999 by O'May and Buchan (1999) and presents shared governance, a decentralized approach that gives actors involved with the practice and work environment the authority and control of the decision-making process. The shared governance has four models: unit-based, congressional, councilor, and administrative. Each unit establishes its system in the Unit-based governance model; the same institution may have several models and no department-wide coordinating activities. In the Congressional governance model, every member belongs to a congress, similar to the federal government, and committees submit work to a “cabinet” for cation. In the Councilor governance model, a coordinating council coordinates activities on the department level, the unit councils reflect department councils, and the staff is accountable for decision-making. Moreover, in the Administrative governance model, there are practice and management structures; a Forum integrates work councils, and councils submit work to the executive council for a decision.

Shared governance can increase job satisfaction, reduce recruitment and orientation expenses, improve productivity, and increase quality for the customer. However, participation needs to be significant, not token, in content, and education is critical to empowering people (O'MAY; BUCHAN, 1999).

To clarify and modernize the term shared governance, Clavelle *et al.* (2016) propose the term *professional governance* defined as accountability – following standards of the profession and positively impacting intended stakeholders –, professional obligation – legal, ethical, organizational engagement, professional involvement, knowledge seeking and growth, and community engagement –, collateral relationships – demonstration, establishment, and expression of equitable interprofessional relationships and interactions –, and decision-making of a professional, which are the core of autonomous practice and allow the achievement of exemplary empirical outcomes.

### 2 Corporate governance

Most studies from 2000 up to 2009 related to corporate governance (CG) in Latin America identified the connection between governance and financial benefit. Corporate governances are public and private institutions that govern the relationship between managers

and investors. The authors do not present any model or framework based on the study (HARRIS, 2009).

Oehmichen (2018) studied the characteristics of owners and board members of corporate governance in Asian emerging markets. The author does not define corporate governance or develop any governance framework. However, because of the Asian emerging market context, it is recommended to differentiate the outcomes and interests related to different types of a) shareholders and b) stakeholders, mainly because economic growth and wealth generation do not mean social protection.

One element of governance is the board of directors and the service tasks they provide. These services include “[...] advising the CEO and top managers on administrative and other managerial issues, as well as more actively initiating and formulating strategy” (ÅBERG; BANKEWITZ; KNOCKAERT, 2019, p. 649), which indicates that the board will have the tasks to advise and have a strategic participation.

Board governance explains how the board is governed, including its structure, composition, and processes. The LR conducted by Federo *et al.* (2020) shows that the board governance features vary according to ownership type (family, lone founder, corporation, institutional investor, State, or venture capitalist), which indicates there is no one-size-fits-all best-practices approach in board governance. Related to the board governance processes, the authors identified board meetings, effort norms, cognitive conflict, engagement, effectiveness, and director motivation. However, they do not provide a framework for board governance.

An SLR on the relationship between CG and Human Resource Management (HRM) by Lima and Galleli (2021) identified that HRM is an important variable that affects CG. However, the contact points generally relate to compensation, board composition, and ownership structure. The authors do not provide any governance framework. However, one of the studies reviewed provides four configurations for the integration between HRM and CG: a) agency-led shareholder value – strict cost control, guide resources to talent management, use individual incentives for employees; b) value for stakeholders – premised on the sense of justice and tolerance, and it is based on the formation of corporate citizenship, ethical policies and distributed leadership; c) strategy-led enlightened shareholder value (stewardship model) – focus on shareholder with part of decisions directed to the interests of other stakeholders; and d) employee-ownership (context-dependent) – CG is an open system, organizational control and coordination decisions depends on the institutional environments (LIMA; GALLELI, 2021; MARTIN *et al.*, 2016).

Farah *et al.* (2021) explored the CG differences and similarities in the Middle East and North Africa (MENA) region in comparison to the Western, mainly related to a) ownership; b) board of directors; c) financing and capital structure; d) disclosure and compliance; e) corporate social responsibility; and f) Islamic law – abide by the principles of Islamic law, or Sharia law. The differences in these elements create hybrid CG models in the MENA region concerning g) Anglo-American model – shareholder-oriented; h) Continental model – stakeholder-oriented; and c) Sharia Law model – fair and just towards stakeholders and God (Sharia-based CG principles, Sharia supervisory board – assure compliance with Islamic law, prevents financial institutions from investing in “sin” businesses, namely, tobacco, alcohol, and pornography).

There are four levels of CG: a) group level – board as a CG mechanism; b) individual level – top management characteristics; c) firm-level – ownership structure; and d) institutional level – formal and informal institutions. These levels can influence a firm’s financial misconduct, including e) restatements – former reporting failures and correction of intentional or unintentional misreporting; f) enforcement activities – fraud charges; and g) fraud events – income manipulation or other fraudulent activities. In a structured literature review, Velte (2023) found that financial restatements, group and individual levels of CG are predominant in the literature, enforcement actions, and fraud events, and the firm and institutional level of CG has lower relevance, the relation between governance and financial misconduct are inconclusive, but board expertise and especially gender diversity in the TMT may decrease financial misconduct. There is little knowledge about the impact of stakeholders (non-shareholders) on misconduct.

## 2.1 Accounting and auditing governance

The governance of accounting and auditing context indicates that the expertise and independence of audit committees and independence of boards are crucial to implementing good accounting – as less earnings management, or the absence of fraudulent financial reporting, or restatements – and good auditing – as auditor type, auditor fees, going concern reporting, and likely audit committee-auditor cooperation. These are governance mechanisms for the internal monitoring of top management’s financial reporting behavior (CARCELLO; HERMANSON; YE, 2011).

To assess the current and future performance of a company, we can use earnings quality measures, and fair value measurement is one set of earnings quality measures, including a) earnings persistence and predictive ability; b) discretionary accruals; c) target beating and



properties of analysts' forecasts; d) earnings variability; and e) other earnings quality measures. The accuracy of the performance is as precise as the measures used. Thesing and Velte (2021) understand that corporate governance can mitigate the opportunistic exploitation of fair value measures by managers and beyond the institutional context (environmental context outside organization), ownership structure, board and compensation, and individual (e.g., CEO characteristics) governance mechanisms, external auditors to a firm are essential corporate governance mechanisms because they assure the reasonableness of fair value measurements.

## 2.2 IT governance

The process by which decisions are made around IT investments is IT governance. The main success factors for IT governance include a) strategic alignment; b) environmental effect (external); c) organizational effect (internal); d) performance management; and e) resource management (ALREEMY *et al.*, 2016).

A subset of IT governance is the governance of data assets. Al-Ruithe, Benkhelifa and Hameed (2018) provide a cloud and non-cloud data governance taxonomy. Traditional (non-cloud) data governance has three dimensions: a) people and organizational bodies – any individual or group that affects or is affected by the data – b) policies and process – a set of measurable acts and rules – and c) the technology.

Cloud data governance is more complex and has a) data governance structure – roles and responsibilities; b) policy and process – policies, standards, principles, and operating processes; c) cloud developments model – public, private, hybrid, and community cloud deployment models; d) service delivery model – Software as a Service (SaaS), Platform as a Service (PaaS) and Infrastructure as a Service (IaaS); e) cloud actors – individuals or organizations that participate in processes or transactions, or perform tasks in the cloud; f) service level agreement – agreement about expectation between parties; g) organizational – participation and commitment of internal stakeholders; h) technological – security, privacy, quality and integrity; i) legal context – external and internal laws and regulation; and j) monitor matrix – authority, control and shared decision-making (AL-RUITHE; BENKHELIFA; HAMEED, 2018).

Caluwe and De Haes (2019) identified the antecedents, governance practices, and consequences of board-level IT governance. The board of directors is the formal body that oversees all activities of an organization. Corporate governance includes the rules and practice system that direct and control the organization, and IT governance is an integral part of

corporate governance that defines and implements processes, structures, and relational mechanisms to enable business and IT people to execute their responsibilities, which are the support of business/IT alignment and the creation of value from IT-enabled investments.

“Board level IT governance research addresses the role of the board in IT-related strategic decision-making and control” (CALUWE; DE HAES, 2019, p. 264), and the increase in the levels of board-level IT governance lead to higher organizational performance. The board-level IT governance practices include a) structures – IT oversight or similar committee at the level of the board, IT expertise at the board, the CIO being part of the (executive) board, and the CIO reporting to the CEO; b) processes – control and advise responsibilities for strategic alignment, value delivery, resource management, risk management, and performance measurement; and c) relational mechanisms – effective communication about IT from and to the board and CIO regularly meeting with the board.

A topic connected with information governance is supply chain information governance (SCIG), defined as the mechanisms that define how a focal organization and its affiliates control, access, and use supply chain information. SCIG consists of three interrelated elements a) SCIG strategy – domain-offensive strategies (e.g., exploration) and domain-defensive strategies (e.g., exploitation); b) SCIG structure – accountability, power (ability to influence SCIG decision making), formalization (explicit procedures and methods), and standardization (consistent use of vocabulary, methods, and procedures); and c) SCIG processes – information capture, retention, access, and distribution (IN *et al.*, 2019).

Information security governance (ISG) is explored by AlGhamdi, Win, and Vlahu-Gjorgievska (2020). The authors explored some ISG definitions and extracted the following factors: top management support, commitment, direction, engagement, managing risk, responsibility, and accountability. The SLR provided seven ISG domains and 27 critical success factors. These domains include a) responsibility and accountability; b) awareness – aware and informed regarding rules and security controls; c) compliance – compliance with law and regulation; d) assessment – auditing; e) measurement; f) reporting; and g) monitoring.

Control Objectives for Information and Related Technologies (COBIT) is one of the most complete and used IT governance frameworks and provides enablers that help an organization achieve its objectives. These IT governance enablers include a) principles – guide high-level management decision-making –, policies – direction, control, and business alignment –, and frameworks – standards; b) processes – set of practices and activities; c) organizational structures – roles, responsibilities, and set the IT-business committees; d) culture – transparent

and participative culture –, ethics – values, beliefs, and behavior patterns –, and behavior – promote continuous improvement; e) information; f) services – infrastructure, technology, and applications –, infrastructure – hardware, software, databases, networks, and the people –, and applications – automation and digitization; and g) people – role and responsibilities –, skills – capabilities used to create value –, and competencies – entrepreneurial, adaptive, and agile mindset (HENRIQUES *et al.*, 2020).

### 2.3 Cross-national governance

The cross-national governance research attempts to explain how a country's economic development and national-level governance impact firm performance. In this study, corporate governance is the structures and processes involved in the relationships between a firm's management and its shareholders, and these relationships are the consequence of the interrelated or intertwined country- and firm-level forces (SCHIEHL; MARTINS, 2016). The author presents the combination of country-level governance factors and firm-level governance mechanisms that can explain firm economic performance.

### 2.4 Corporate governance in the public sector

Masegare and Ngoepe (2018, p. 586–587) propose corporate governance – defined as “[...] improving the performance of an organization for the benefit of shareholders, stakeholders, and economic growth” – a model for municipalities, where they incorporate audit committee, risk management, information technology (IT), auditing, stakeholder relations, reporting, and disclosure. A municipal council to the King III Report Principles also plays an active role in the strategy development process and comprises councilors, a mayor, and a municipal manager. The council has key implementation indicators, including board roles and responsibilities, composition, development program, performance system, and ethical leadership and management. At the same time, the committees include independent audit, risk management, IT governance, governance, MPAC (no definition provided in the paper), and specific sectors.

### 2.5 Corporate Social Responsibility

Corporate social responsibility (CSR) encompasses policies, processes, and practices that firms use to improve the social state and well-being of their stakeholders, society, and environment, voluntarily or mandated by rules, norms, or customs. The authors argue that it is

internal (e.g., board composition, ownership, and managerial incentives) and external (e.g., legal system, market, auditing, rating organizations, stakeholders, and media) CG mechanisms, and internal (e.g., ethical codes of conduct, employee health and safety, work-life balance, training, protection of human rights, provision of equal opportunity, and diversity practices) and external (e.g., partnerships with charity organizations, philanthropy, environmental and community practices, and CSR disclosures and awards) CSR mechanisms (ZAMAN *et al.*, 2022).

Zaman *et al.* (2022) found that most firms emphasize internal CG mechanisms. However, when related to CSR mechanisms, firms operating in coordinated market economies (economies that emphasize collectivism and favor nonmarket forms of coordination), highly coordinated (states play a dominant role in economic coordination and market regulation), and European peripheral economies (e.g., France, Greece, Italy, Portugal, Spain, Czech Republic, Hungary, Poland, Romania, and Slovakia) focus on internal and external CSR mechanisms. In contrast, firms operating in liberal market economies (economies that encourage individualism, workers and other actors are less organized, and firms are coordinated through the market and hierarchies) are more likely to single out external CSR instead of internal CSR. The authors believe external CG mechanisms should be further investigated and internal CG mechanisms can improve CSR outcomes.

CSR viewed as a function of the CG explores how the adopted CG frames CSR policies and practices, while CG as a function of CSR allows the firm to use CSR as a tool for effective and responsible governance (increase stakeholder engagement, improve governance, generating business-related benefits) (ZAMAN *et al.*, 2022).

Huang (2021) analyzed the relation between ESG activity and firm performance using a methodical literature search and found a positive and statistically significant effect, but economically modest. The author does not provide any governance framework.

## 2.6 Entrepreneurial firms' governance

Entrepreneurial firms include start-ups, ventures, small firms, small and medium-sized enterprises (SMEs), or young firms and corporate governance concerns ownership, directors, entrepreneurs, or other top managers and its characteristics are a) ownership structure – VC ownership; family ownership; founder, CEO, and top management teams (TMTs) ownership; director ownership; and other ownership issues –; b) board characteristics – board role; board size; board composition; and board behavior –; c) top management characteristics – duality,

founder status, and owner status; compensation; TMT characteristics; behavioral and psychological characteristics; and succession –; d) other constructs – corporate governance index; human capital (e.g., VC experience, director knowledge, director experience, director education, academic degree, qualification, TMT knowledge, manager experience, and manager training); social capital (social networks); reputation and signaling; and informal mechanisms (e.g., relational norm and trust, board independence). CG leads to the following outcomes: e) firm value; f) financial performance; g) non-financial performance (e.g., growth and innovation); h) financing activity – securing financial resources; i) agency problems (e.g., earning quality, excessive control, financial problems, and total factor productivity); j) business survival; and k) corporate strategy (e.g., strategic change and differentiation strategy) (LI; TERJESEN; UMANS, 2020).

### 3 Environmental governance

A governance context that is recurring in the literature is the environment. Huitema *et al.* (2009) study adaptative water governance. Governance encompasses formal and informal institutions, including laws, official policies, organizational structures, power relations, and practices that have been developed and rules followed in practice. The adaptative perspective emphasizes learning and uses structured experimentation in combination with flexibility to adapt the governance, while co-management emphasizes the sharing of rights, responsibilities, and power between participants, government, and civil society (HUITEMA *et al.*, 2009).

Climate change governance is concerned with climate change and sustainable development. The participation of environmental nongovernmental organizations participation in climate change governance is composed of a four-phase policy cycle a) identification of policy options – determine public preferences on the social outcomes and processes of the policy (e.g., forums and conferences, stakeholder consultation, provision of relevant documents and information); b) policy formulation – create and choose the courses of action from a list of policy options by various actors; c) policy implementation – execution of activities by involved actors to reach policy goals and objectives; and d) policy monitoring – systematic assessment of outcomes – and evaluation – ongoing analysis of performance related to expected results (HARIS; MUSTAFA; RAJA ARIFFIN, 2020).

Vink, Dewulf, and Termeer (2013) argue that organized power (formal rules), unorganized power (informal rules), organized knowledge (crystallizations of complex processes of knowledge development), and unorganized knowledge (unorganized forms like

learning, sharing knowledge, making sense, framing, or deliberating over the nature of the problem) will lead to different climate change adaptation governance approaches.

Organized power and organized knowledge are separated parameters and lead to a static system of governance. Unorganized knowledge and organized power lead to a governance approach of institutional learning and resilience. Organized knowledge and the unorganized power approach show how organized knowledge determines unorganized power or should be used to overcome unorganized power. Unorganized knowledge and unorganized power show how unorganized knowledge acts as a negotiation device to gain or overcome unorganized power (VINK; DEWULF; TERMEER, 2013). The author indicates that governance may lead to different results as we split variables into formal (organized power and knowledge) and informal (unorganized power and knowledge).

Climate change is a wicked problem because various social actors may perceive, interpret, and assess the problem differently, creating ambiguities or uncertainties that lead to dynamically evolving interdependencies. At the same time, the longer it takes to address the problem, the costlier it will be, and its systemic nature requires a coordinated global response. To solve this super wicked problem, it is necessary for a common goal, and governance is the process of steering actors toward a collective action to reach common objectives. Sapiains *et al.* (2021) provide an SLR on climate change and identified six clusters of climate governance approaches: a) multi-level – different components, such as scale, actors, and interactions, of governance articulating within a broader scheme internationally or transnationally; b) global – state and international institutions play a central role; c) transnational – private actors have a role in climate governance, with a significant role of political economy (e.g., PPP); d) polycentric – participation of local communities and city networks; e) adaptive – the process allow governance to adjust to actual or expected climate changes and its effects; and f) experimental and transformative – implement “learning by doing” mechanisms or develop strategies or “experiments” on a local scale.

Sapiains *et al.* (2021) also developed a governance matrix with two axes, the horizontal related to the goal of governance, ranging from incremental socio-technical improvements (conservative change) on the left up to socio-technical transformations (radical change) on the right and the vertical axis related to the degree of community influence allowed or encouraged, ranging from community-based on the bottom up to institutional-based on the top. Quadrant I (top-left) is hierarchical (e.g., global and multi-level); quadrant II (bottom-left) is co-dependent

(e.g., transnational and adaptative); quadrant III (top-right) is decentralized; and quadrant IV (bottom-right) is self-organized (e.g., experimental, transformative, and polycentric).

According to the authors, the success of collaboration depends on trust and how parties order their activities. A governance model where collaborating bodies become responsible for independent parts of an intervention program – pooled coupling – creates better results than “sequential coupling” – actions are undertaken after another – and “reciprocal coupling.” – bodies involved take turns in specific actions (HUITEMA *et al.*, 2009).

To complement the adaptative governance, some authors developed a model to evaluate the effectiveness of actions adopted by the adaptative governance. The evaluation model considers the purpose – functional purposes that governance structures and processes must fulfill at a certain time and context – relating resource systems, ecosystems, and social, economic, and political settings – as antecedents of the governance outcomes. According to the authors, this model can help set learning goals and expectations, define learning mechanisms, and identify who should get involved (RIJKE *et al.*, 2012).

In flood risk management governance, governance refers to the adaptative approach of “[...] processes, institutions, policies, and relationships through which decisions are made and actions taken that affect environmental and social systems [...]” (MORRISON; WESTBROOK; NOBLE, 2018, p. 292) with focus on mitigating, coping with, and recovering from expected and unexpected change, while management involves operational decisions to achieve specific outcomes and may be a sub-set of governance. The author identified five key themes on flood risk management governance: stakeholder engagement, policies and action, research on practice, supporting tools, and frameworks.

A tool that can be used for adaptative governance is role-playing games (RPGs). The idea is to use RPGs as serious games for social learning, building relationships, trust, capacity, and connections related to adaptative governance. The authors explore some elements of adaptative governance, including a) cross-scale multi-actor collaboration – wide range and diversity of stakeholders; b) bridge and match scale – coordination; c) social capital – trust, familiarity, and goodwill; d) community empowerment and engagement; e) capacity development – knowledge, resources and the scope for action; f) link science and decision-making – information about problem and solution; g) strong leadership – skilled, charismatic and passionate; and h) exploiting social-ecological context – being ready for windows of opportunity (EDWARDS *et al.*, 2019).

Governance is multi-playered and multi-layered in the sense that not only governments that steer and regulate, but it also includes the private sector and civil society. This awareness is reflected in developing shared and collaborative governance to empower, enlighten, and engage citizens in governing themselves. A collaborative economic governance should occur with affected stakeholders' participation or prior agreement. The governance implementation must consider agenda setting, rulemaking, implementation, monitoring, adjudication, and enforcement (BENDELL; MILLER; WORTMANN, 2011).

Collaboration is a procedure that enables parties who have diverse perspectives on a subject to constructively explore those differences and look for answers that go beyond their own, more constrained ideas of what is achievable. In this sense, collaborative governance must create an environmental decision-making process that involves public and private actors engaged with shared motivations, joint action, and mutual trust (FEIST; PLUMMER; BAIRD, 2020). Feist, Plummer, and Baird (2020) synthesize the knowledge of qualities, outcomes, and their relationship(s) on environmental management and governance collaboration. Although the authors do not provide a governance framework, they identified the qualities that contribute to the collaborative process, where the most relevant is a) active involvement; b) diverse representation of views; and c) social learning – a change in understanding through social interactions between actors. These qualities lead to outcomes such as d) gaining a shared understanding; e) collective action; f) implementation of plans; g) better governance; h) social capital – relationships of trust, norms of reciprocity, and networks; i) creative solutions; j) development of management or conservation plans; and k) social learning.

Urban scenarios and city context are also strongly connected with governance. Because urban development impacts climate change, urban-scale and local action are integral to national and international policy agendas. The key categories of actors are state actors, market actors, scientific actors, and civil society (CORFEE-MORLOT *et al.*, 2011) or the quadruple helix (LEYDESDORFF, 2012). A multilevel risk governance focuses on collective decision-making processes integrating science and technical information with local knowledge to inform public policy decisions. Non-governmental actors also play an observer role in monitoring the performance of policies for the stated goals (CORFEE-MORLOT *et al.*, 2011).

The environment provides natural resources and can be viewed as a service provider. For this reason, an ecosystem service governance institutionalizes the mechanisms for collective decision-making and collective action related to natural resource management. The governance needs to consider the institution involved, the set of policies in place or to be



developed, and property rights, trying to balance actors' interests and values while generating knowledge and providing information for decision-making and maintaining the process inclusive and adaptative (LOFT; MANN; HANSJÜRGENS, 2015). The authors are the first to consider the need to solve the fair income distribution.

Integrative environmental governance proposed by Visseren-Hamakers (2015) focuses on the relationships between policies and the governance system, mainly because there is a gap in the literature to understand the combined performance of multiple governance instruments and governance systems. For this reason, the author defines integrative environmental governance as “the theories and practices that focus on the relationships between: first, (environmental) governance instruments, or second, governance systems.” (VISSEREN-HAMAKERS, 2015, p. 137).

Water governance is an environmental and city issue. In an LR, Lepenies *et al.* (2018) identified why, who, and how coproduction can be used in the water governance context. Coproduction involves the collaboration of state agencies and citizens in the provision of water services and is a mechanism of information or knowledge to support decision-making. The success of coproduction can lead to effective and efficient public service delivery and generate relevant, robust, actionable, and inclusive knowledge.

Because governance approaches that involve multiple actors and levels are more effective in dealing with complex issues, in comparison with top-down and central frameworks and mechanisms, water governance needs an inclusive approach and is defined as the process where public and private actors interact to realize collective goals (WUIJTS; DRIESSEN; VAN RIJSWICK, 2018). According to the European Water Framework Directive, some of these goals can include “[...] integrated river basin approach, the role of stakeholders and the importance of balancing the costs and benefits of water services.” (WUIJTS; DRIESSEN; VAN RIJSWICK, 2018, p. 1).

Water governance can be viewed through an ecological – “[...] water quality governance is effective if a good status of the ecosystem is realized and preserved” –, legal – “[...] water quality governance is effective if the objectives of the legal framework are met” –, and socio-economic – “[...] water quality governance is effective if the societal decision-making on water quality improvement is effective, efficient and legitimate” – perspectives (WUIJTS; DRIESSEN; VAN RIJSWICK, 2018, p. 4–6).

Ecological governance is concerned with meeting conditions of nutrients, toxic substances, morphology, water flows, and a balanced ecosystem of indigenous species. Legal

governance is concerned with planning, licensing, cost recovery, and reporting and enforcement, but it is also concerned with the right to access information, the right to participate, and the right of justice access; all three are procedural (e.g., participation) and substantive (e.g., health protection). In contrast, Social-Economic governance concerns compliance through incentives, regulation, and enforcement of voluntary measures based on moral grounds and stakeholder involvement (WUIJTS; DRIESSEN; VAN RIJSWICK, 2018).

Bakker and Ritts (2018) believe that Smart Earth – the set of environmental applications of the Internet of Things – poses some challenges for environmental governance – the set of social actors and institutions, as well as data-gathering and decision-making processes engaged in environmental decision-making. Although the author does not present a governance framework, the Smart Earth evaluated, such as data, real-time regulation, prediction, open source, and citizen science/sensing – the intimate, experiential monitoring of environments by human users – presents a new perspective on how future research on governance may need to deal with technology advancements, posing improvements, challenges, and even pitfalls on political-economic, social, and ethical dimensions (BAKKER; RITTS, 2018).

Barclay and Miller (2018) present the sustainable seafood movement as a governance concert, where the governance has been implemented by several actors, including consumers, the general public, investors, media, fishers, brands, retailers, environmental non-governmental organizations, and scientists. However, the author does not go beyond that in the governance topic; there is no definition of governance, and no framework is present beyond the stakeholders.

Complexity is a significant characteristic of environmental governance. For example, an energy policy can spill over to farmers and their land use capacity. Bastos, Mairon, and Persson (2019) name this effect as leakage, the unintended negative environmental impact of an intervention in one place and domain that results from interventions elsewhere in the same domain (e.g., deforestation induced by an anti-deforestation policy qualifies as leakage), which is a governance issue.

The authors do not present any governance framework but argue that the unintentional characteristic of leakage should never be assumed, mainly because some actors may purposefully design the governance system to leak, which is a strategy, not an unawareness. This intentionality is part of a political debate and creates a gap between the broader policy landscape and the policy scope. As much as a group of actors defines the policy scope in a certain way, the gap may also be defined by certain actors in a certain way. This awareness can

change how governance is designed, implemented, and monitored (BASTOS LIMA; PERSSON; MEYFROIDT, 2019).

Sustainable innovation governance, narrowly defined, is the innovations that reduce environmental burdens and, broadly defined, require the management of economic, social, and ecological aspects to integrate them into the design of new products, processes, and organizational structures. In this context, governance involves building consensus to carry out a program where many different interests are at play (LUPOVA-HENRY; DOTTI, 2019).

Lupova-Henry and Dotti (2019) questioned who governs, how they govern, and what is governed in sustainable innovation governance. They found that in a state-centric approach, more participative and reflexive modes of governance are more effective by a triple helix approach, shaping the conditions for interactions and focusing on public concerns that create a shared vision. The corporate-centric approach should focus on participation in business networks and proactively shaping the business environment. The first provides the development of capabilities such as market orientation and future anticipation, learning to deal with externalities, reflexivity about environmental and social issues, resilience, responsiveness, and absorptive capacity. In contrast, the second supports innovation adoption, diffusion, legitimation, and overcoming market barriers. Finally, the network-centric approach can be society-focused and hybrid and both have four key characteristics: a) shift of perspective on the power relations; b) focus on the environment as the ‘common good’ and a shared vision; c) ensure a fair distribution; and c) bridge together local, situated, and broader (scientific) knowledge.

The last contribution of the authors is the success factors of stakeholder engagement, including a strategic approach to stakeholder management, trust-building effort, formalization, reporting and accountability, transparency, open dialogue and continuous feedback, clear direction regarding objectives, goals, actions and principles, “[...] bridging local know-how and expertise with global scientific knowledge [...]”, and “[...] having common values (beyond economic profit) and sharing the idea of the ‘common good’ [...]” (LUPOVA-HENRY; DOTTI, 2019, p. 745).

Environmental-related issues can promote participatory governance, where processes and structures foster policy makers, actors from civil society, administration, and business in deciding and managing environmental issues. A participatory environmental governance will create social learning as an outcome of the participation. Social learning is a process, and its investigation can be used to evaluate the participation processes. Based on this, Ernst (2019)

explore some factor that influences social learning, and we believe can provide a model for participatory environmental governance. These factors include a) participation process characteristics – participation format (intensity of communication or dialogue), access to information, facilitation, participant's diversity and characteristics, and context (features of the type of issue, pre-existing relationships, and the institutional setting); b) normative process factors – procedural fairness, effectiveness, efficiency, and satisfaction (perceived output and outcome of participation), and legitimacy (processes that include consensual decision making and shared power); and c) intermediate process outcomes – trust, network building, and conflict resolution.

In an SLR related to water and climate governance in deltas, Triyanti, Hegger, and Driessen (2020) provide a list of governance problems and solutions; the former includes the following problems a) conflicting political and geographical scales – conflict among governing actors with competing political agendas and priorities; b) conflicting timescales – short-term problems are prioritized over long-term planning; c) conflicting interests – how to arrive at consensus; d) lack of agreement on allocated responsibilities lack – dilutes tasks and responsibilities, lack of accountability; e) ineffective regulatory instruments – legislation, permits, directives, codes, and standards; f) adverse policies that marginalize local communities – lack of fairness and justice; and g) uncertainty relating to the social system – incomplete understanding of the system to be managed. On the other hand, the governance solutions include h) stimulating collaborative, reflexive learning (which changes are needed and under which circumstances) and partnerships; i) enhancing the role of boundary organizations – organizations that facilitate interaction (e.g., committees); j) balancing interactive policies with integrated priorities – unpacking societal problems and opportunities and prioritize; k) enabling livelihood transformation – provide resilience to deal with adversities; and l) strengthening long-term planning, including adaptive responses – development of a primary and contingency plans adding adaptiveness and transformability to change if new information arrives.

Climate security can be determined by climate adaptation, disaster risk management, sustainable development, and resilience building by society, which impact human security – adequate availability of water, food, and healthcare, among other resources, and community safety. Tangney *et al.* (2021) do not present any governance framework. However, the authors review some governance challenges on climate security, including a) strategic coordination – international organizations, national governments and their reporting agencies should take a leadership and mediation role to avoid and resolve conflicts, contradictions and fragmentation

and ensure coherence of governance mechanisms (e.g., activities, policies); b) cooperation for multi-level governance – “[...] allow for transparency, information sharing and stakeholder participation that builds cross-institutional and state governance capacity and reciprocity, nationally and internationally” (TANGNEY *et al.*, 2021, p. 10) (e.g., governance networks); c) Municipal resources (e.g., finance, data, information, expertise and human resources); and d) managing path dependency – set of constraining characteristics that can limit choices considered for decision-making.

Nature-based solution (NBS) is a distinctive type of governance intervention aiming to “[...] to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits.” (KIRSOP-TAYLOR; RUSSEL; JENSEN, 2022, p. 499). The authors SLR explored NBS as a policy implementation for integrated water management and identified that the institutional logics of operation – “[...] the socially constructed historical patterns of material practices, assumptions, values, beliefs, and rules by which produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality [...]” – and the administrative dynamics – common conditions and concerns that delineate and permeate the practices of public administration – will drive NBS (KIRSOP-TAYLOR; RUSSEL; JENSEN, 2022, p. 500).

The administrative dynamics instruments include a) control over the longevity of municipal funding; b) bureaucratic discretion/autonomy; c) administrative cohesiveness; and d) political actors, and the institutional logics of operation instruments include e) policy experimentation; f) urban planning (rational); g) urban politics (disjointed – incrementalist); h) path dependencies; and i) culture. These instruments can be classified as j) knowledge-based instruments (e.g., public awareness campaigns, information about NBS options for community groups, and information for citizens); k) market-based instruments (limited incentive schemes and revenue generation for NBS setting up and maintenance); and l) regulatory instruments (legislative tools for coercing engagement and compliance) (KIRSOP-TAYLOR; RUSSEL; JENSEN, 2022).

Massive development programs of transportation infrastructure can generate substantial environmental impacts, China's Belt and Road Initiative is one example studied by Wang *et al.* (2020b). The authors do not provide a governance framework but a stakeholder role framework, indicating that “(1) the inter-governmental agencies and the general public collectively form the *core governance structure*; (2) the financing institutions provide the fundamental *enabling*

*factors* to the structure, that is, the necessary resources and knowledge; and (3) the environmental NGOs further complement the three-pronged governance mechanism with a variety of *facilitating expertise*.” (WANG *et al.*, 2020b, p. 196). The study explores the importance of bringing government, public and local communities, financing institutions, and NGOs on board for the mega project's success.

The fragmentation – a plurality of governance mechanisms and actors leading with different addressed issues, goals, and normative values – of sustainability governance – the regulatory order that enables actors to develop sustainable pathways for all – is debated by Heidingsfelder and Beckmann (2020) in an SLR. They found that fragmentation occurs in the ends (what?), means (how?), context (where?), and potential outcomes (with what effects?) of sustainability governance. Regarding how to govern, the SLR focus, the primary distinction concerns soft – private regulation or transnational new governance – and hard – governmental laws – approaches. Second, they are linked to private – shaped by civil society organizations and corporations – public – nation states and governmental bodies as governance setters – and hybrid – various combinations of private and public – approaches for governance.

To deal with this fragmentation and achieve the respective goals of the involved actors, Heidingsfelder and Beckmann (2020) suggest three management types for fragmentation and components: a) coordination (improve the fragmented interplay) – orchestration, agenda setting, bridging (bring actors together), interplay management (uses regulatory power to steer the interplay and uses soft power for capacity building), and complementary governance (different fragments complement each other); b) convergence and integration – convergence (merging separated governance mechanisms), integration (integrate different governance levels, local, national, and international), and alignment (approximating and combining different sustainability governance approaches); and c) meta-governance – multiple of the previous components.

Successful environmental management results from a governmental hierarchy fostering interregional actors' collective bottom-up action. The governance system of processes, interactions, and arrangements used for decision-making and outcomes delivery of natural resources is complex because it is part of a decentralized structure with a high diversity of interdependent stakeholders and interests that need to go through a decision-making process. The main governance challenges include a) capacity – setting higher level targets, availability of resources, research and analysis capacities, setting clear targets, capacity to implement, corporate governance, monitoring capacity, and leadership capacity; b) connectivity –

connectivity of stakeholders to decision-making, alignment of vision and objectives across institutions, collaborative policy-making frameworks, conflict resolution mechanisms, linkages between research and practice, vertical/horizontal alignment, implementation partnerships, and connection between stages of planning process; and c) knowledge – availability of knowledge, use of indigenous knowledge, knowledge retention over time, and availability/use of decision-support tools (POTTS, 2020).

“The Earth System Governance Project is a global, interdisciplinary research network advancing knowledge at the interface between global environmental change and governance.” (EARTH SYSTEM GOVERNANCE, 2023). Earth system governance is concerned with access and allocation of natural resources. Access is about the ability of humans to supply their basic needs, while allocation looks for the distribution of benefits, responsibilities, and risks between countries and actors related to natural resources. Access and allocation are also related to justice, fairness, and equity – distributive or procedural (COOLSAET *et al.*, 2020).

The main findings of Coolsaet *et al.* (2020) are that only occasionally are access and allocation reported to be controlled by local decision-making communities, local governance does not automatically trigger benefits, unequal outcomes are the result of new governance arrangements with existing social inequalities or flawed institutional design, and several of these flaws come from historical roots (e.g., colonialism). Another issue is that political inequalities reinforce power structures and deepen existing inequalities, and corruption, poverty, and challenges for full and effective participation must be observed to avoid benefits for the less needed. Communal and customary land tenure increase participation and favors a spread of outcomes, and an institutional bricolage can foster institutional respect and inclusion within conservation governance. According to the author:

“While there is evidence that access and allocation mechanisms can enhance the quality of biodiversity conservation and improve social well-being, our review shows that the quality of outcomes is strongly dependant on the political economy in which they take place, on the nature of the process leading to them, and on the underlying social and ecological objectives they pursue. (COOLSAET *et al.*, 2020).

The Earth System Governance Project has justice as its core, especially in distributing material and immaterial values. The literature on access and allocation provides diverse perspectives and knowledge related to distributive and procedural justice perspectives. Including an epistemological lens, in which justice is the object (e.g., How is justice represented

in social documents, practices, and institutions), and ethical lenses divided into conservative – ideal (e.g., What can a person legitimately expect given existing rules?), corrective – distributive (e.g., Has there been a wrong or damage some actors? How can it be compensated?), and procedural – substantive (e.g., Which processes are or should be used to distribute benefits and burdens?) (KALFAGIANNI; MEISCH, 2020).

Governance for sustainable regional development occurs when actors continuously use interactive auto-organization and collibration<sup>8</sup> methods. Balanzo *et al.* (2020) develop an analytical framework for typifying challenges of governance for sustainable regional development in Latin America considering the integration – degrees of regional integration and degrees of regional response to context – and convergence – possible configurations of alignment between actors – levels in the environmental, socio-spatial, economic, and political dimensions. Political governance challenges are the most salient, especially collective decision-making toward outcomes. LATAM lacks awareness, participation, and integration amongst citizens and organizations, and the weak presence of political and policy actors limits its sustainable role. The economic activities are not integrated with the regional development pathways, and generally, a couple or one actor dominates the regional development vision. Collective predation is the rule indicating collective practices of exploitation or degradation of nature. As a result, it becomes hard to guarantee a minimum level of quality of life for inhabitants. The authors do not provide any governance framework (BALANZO *et al.*, 2020). However, we believe that higher levels of integration and convergence are desirable.

Daugaard (2020) presents a SLR on environmental, social, and governance (ESG) investing. The author understands ESG investing as the investment choice based on financial and non-financial reason, a definition closer related to socially responsible investing (SRI), investing to impact society and the world positively. The author does not explore governance and does not present any framework. Widyawati (WIDYAWATI, 2020) followed the same path and did a SLR to evaluate SRI and ESG metrics, and found there is a lack of transparency and convergence – too many different metrics (e.g., same company and two different investment ratings) – related to the metrics, which undermine the quality and reliability of SRI and ESG metrics.

Forest governance comprises the effect on forests by interacting with public and private actors and the formal and informal public and private regulatory structures. Forest governance consists of two mainstream models: the agency – participant actors try to maximize their

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<sup>8</sup> Find the governance modes optimal mixes (GJALTEMA; BIESBROEK; TERMEER, 2020).



economic or political benefits – and the structure – laws, regulations, plans, cultural conventions, and norms shape land use decisions – concepts (FISCHER; GIESSEN; GÜNTER, 2020).

The agency approach encompasses indicators such as a) forest ownership; b) tenure dispute resolution; c) private sector; d) civil society; e) public participation in decision making; and f) revenues, while the structure approach encompasses g) land use planning; h) land use plan implementation; i) sectoral land use; j) forest strategies and plans; k) legal/policy framework; l) law enforcement; and m) legislature. According to Fischer, Giessen, and Günter (2020), all indicators decreased deforestation, degradation, or increased reforestation, and the most relevant structural indicators are land use plan implementation, legal/policy framework, and related law enforcement, while the most relevant agency indicators are participation – ensure that stakeholders’ interests are reflected in final decisions – and tenure/ownership – property and user rights.

Thees *et al.* (2020) explore the use of living labs (LL) as a tool for destination governance (DG) – a coordination system for resource sharing and development by the cooperation of interdependent stakeholders – and this topic is connected to environmental governance because over-tourism – too much tourism in a certain place and time – can overloading local infrastructures and the environment, promote positive or negative sociocultural changes, or allow the gentrification of certain districts. The DG principles include a) public participation; b) consensus orientation; c) strategic vision; d) responsiveness to stakeholders; e) effectiveness; f) efficiency; g) accountability to the public and stakeholders; h) transparency; i) equity; and j) rule of law, while the DG tools include k) guidelines and certifications; l) communication; m) cooperation and grouping; n) knowledge transfer; o) meetings; and p) tourism type.

LL is a shared space for cooperation that follows a user-driven and cross-stakeholder approach for experiments and tests of innovative products and services in a real-life environment. The characteristics of LL include principles such as a) openness; b) users in critical roles; c) meaningful and sustainable interactions; d) human-centric setting; e) space for observation; and f) technological infrastructure, and also include tools, such as g) web applications; h) feedback, evaluation, and measuring; i) data, knowledge, and analysis; j) design; k) multimedia; and l) personal interaction (THEES *et al.*, 2020). Unfortunately, the authors do not define several of the principles cited above.

Privately protected areas and associated nature-based tourism are market-based conservation strategies inside a neoliberal view that produce a “[...] loss in the social embeddedness of nature as the local becomes supplanted with global markets and conservation agendas.” (BORRIE; GALE; BOSAK, 2022, p. 2642). Good governance principles that should be pursued include a) transparency and public accountability; b) equitable distribution of costs and benefits; and c) engagement and responsiveness with stakeholders (BORRIE; GALE; BOSAK, 2022).

Mining operations are detrimental to the environment and to the health and welfare of workers. Therefore, using responsible mining – using as much as possible sustainable mining practices (responsible over sustainable, because extraction by far exceeds natural formation) – is a social innovation approach – that improves individuals and community welfare through employment, consumption, participation, process or product change, organizational change and changes in financing, while developing new relationships with stakeholders and territories (SAUER; HIETE, 2020).

Over the authority-based governance – pressure from governments and trade unions – Sauer and Hiete (2020) propose a multi-stakeholder initiatives (MSIs) governance approach – formation of initiatives aiming to establish sustainability standards – integrating several groups of stakeholders. MSIs bring stakeholders together to develop their governance in a negotiation process and to do this, MSIs need a) ownership – who is member; b) definition of scope – challenges to be addressed; and c) institutional design – processes needed (i. standard requirements of sustainability criteria; ii. procedures to set and revise standards; iii. capacity building, implementation, and audit; and iv. operational and organizational structure – e.g., decision-making and whistleblower mechanisms), which will lead to the change in practices of the detrimental mining sector.

Eger *et al.* (2021) developed a framework to analyze the characteristics of integrated coastal and marine management (ICM) that can be used to design effective community-based governance. The framework is composed of four governance elements and its characteristics, including a) governance structure – formal structures, innovative mechanisms (e.g., structures or arrangements), horizontal linkages, vertical linkages, flexible, responsive (adaptive) structures, multi-level, poly-centric or nested, enforceable; b) actors – meaningful inclusion of diverse actor groups and knowledge types, capacity building or development or empowerment, political support, will or buy-in, clear expectations, roles and responsibilities, common vision / goals / approach / problem-framing; c) governance processes – iterative, reflective, reflexive or

adaptive, indicators for monitoring and evaluation, conflict acknowledgement, mitigation or mediation/resolution, learning or knowledge co-production / integration focused, early and ongoing engagement; and d) qualities – multiple, balanced objectives, connected to local context (placed-based), strategic objectives or vision, evidence-based decision- making, adequate resources, good governance values, multi- inter-, or trans- disciplinary approaches, operational objectives, regional scale / boundaries, proactive or precautionary, and democratic.

Indigenous people have knowledge that can foster the sustainable occupation of a territory and the use of natural resources, including marine ecosystems. However, indigenous people can only use their knowledge to contribute to marine governance and management in an environmental justice (EJ) context. The EJ framework can be composed of a) procedural justice – methods, means, and processes for public participation in policy and planning; b) distributive justice – distribution of and access to environmental goods and bads; c) recognitional justice – formal acknowledgment of the different social groups, identities, knowledge, and rights by government, courts, and civil society; and, sometimes, d) capacity justice – people need to be capable to function fully in the lives they choose for themselves. The authors found that marine and governance management creates some form of environmental injustice related to indigenous people (PARSONS; TAYLOR; CREASE, 2021).

The literature review identified that the most prevalent characteristics are effective inclusion of diverse actor groups and knowledge types (80%); formal structures (70%); innovative mechanisms (62%); horizontal linkages (58%); iterative, reflective or reflexive (57%); multiple, balanced objectives (57%); and connection to local context (52%), while the least were proactive or precautionary (16%), democratic (14%), and early and ongoing engagement (12%). Initiatives that made through most of its phases – planning and development phase, fully or partially implemented, monitoring and evaluation phase, undergoing at least one iteration of adaptation – are the ones that share the following characteristics “[...] innovative mechanisms (78%), horizontal integration (67%), adequate resources (67%), multiple and balanced objectives (67%), connection to local contexts (67%), and indicators for monitoring and evaluation (67%).” (EGER *et al.*, 2021, p. 5).

The outcomes include greater participation, clear operational objectives, reflexive processes, and improved solutions for complex problems. Eger *et al.* (2021, p. 7) pointed out that qualities related to inclusivity and equity (Qualities) lead to a more balanced distribution of benefits” and the lack of legitimacy (e.g., rules externally imposed) likely affects compliance and outcomes.

Oceans are a universal common, and local actions may not deal with the broad positive and negative impact we are causing. To work across all governance levels (e.g., institutions, policies, mechanisms, countries, and actors), meta-ocean governance is proposed by Zulfiqar and Butt (2021). The governance structure should see the ocean as a shared responsibility and seek stable and equitable geopolitical power. The authors base their meta-governance on the sustainable development goals (SDGs), which include meta-governance elements such as a) strong institutions; b) scientific decision-making (capacity); and c) policy coherence for common but differentiated governance; some of the principles include, d) rule of law; e) transparency; f) accountability; g) participation; h) inclusiveness; i) representativeness; j) responsiveness; k) systemic integration; l) adaptation (holistic and ecosystem-based approach); m) precautionary approach (prevention).

Regarding SDGs, van Zanten and van Tulder (2021, p. 211) do not present a governance framework but argue that a nexus-based governance approach, “which induces policymakers to act on the interactions between individual SDGs in order to reap co-benefits and reduce the risk of trade-off,” is necessary. To improve the sustainable development impacts of economic activities, business policy development – to mitigate negative impacts on the environment, public policy – enhances potential positive impacts, innovation, or a combination of these types in a polycentric context.

Based on polycentric – several centers of decision making – and multi-level – how multiple actors manage their interdependencies to solve shared issues – governance perspectives Heinen, Arlati and Knieling (2022) develop a five dimensions framework to analyze climate governance. This framework considers the following governance dimensions: a) governance issue – a common goal; b) statutory responsibilities of decision-making centers; c) types of interactions among decision-makers (e.g., cooperation, competition, conflicts resolution, learning); d) rules-in-use – self-regulated or legislative rules; and e) degree of dependencies in decision-making among decision-makers – independence or interdependence of decisions. Although the authors do not provide any governance framework, they provide a climate governance analytical framework of components that should be considered.

Social-ecological systems (SES) represent the mutual interaction between humans and nature. At the same time, governance can guide behavior related to this interaction based on rules, norms, and strategies in a context where policy interactions are formed, applied, interpreted, and reformed. One tool to understand this interaction is agent-based models, computational systems with autonomous entities (agents) in an environment that provide

decision-making guidance on, for example, the conditions under which cooperative solutions are sustained. In an SLR, Bourceret, Amblard and Mathias (2021) evaluate governance in social-ecological agent-based models using three modes of governance frameworks: a) community-based – solidarity relationships and time- and place-specific knowledge embodied in communities; b) market-based – exchange between sellers and buyers based on price or quantity; and c) state-based – use of the following instruments i) command-and-control (e.g., taxes and subsidies); ii) economic instruments (e.g., legislation, permits, and quotas); and iii) information. These governance modes are hybrid modes: iv) co-management – between state and community; v) public-private partnerships – between state and market; and vi) private-social partnerships – between market and community.

State-based modes of governance are the most represented in the literature, in conjunction with command-and-control and economic instruments. At the same time, market-based governance modes are rarely represented, indicating that market logic cannot solve SES and requires public interventions (BOURCERET; AMBLARD; MATHIAS, 2021).

#### 4 Participatory governance

Participatory governance aims to facilitate the participation of citizens in the public policy process, fund distribution, and monitoring and evaluating government spending to improve public service delivery, empower citizens, and deepen democracy, which improves the match between public services and beneficiaries' preferences (SPEER, 2012). However, Speer (2012) found insufficient evidence to support the improvements in government performance, service quality, and well-being due to participatory governance, mainly because of the lack of high capacity and motivation among public officials and citizens.

#### 5 Health governance

In a health context, eight governance principles are presented by Kaplan *et al.* (2013): a) Strategic vision and direction (define priorities, expected roles, establish benchmarks, and build consensus); b) Accountability (holding participants answerable for processes and outcomes); c) Transparency (openness and clarity in decision-making and allocation of resources); d) Information generation (timely and accurate information); e) Efficiency (extent to which limited human and financial resources are applied without waste, delay, or corruption); f) Equity and fairness (degree in which policies and procedures apply equally to everyone); g)

Responsiveness (ability to respond to health needs); and h) Citizen voice and participation (individuals acting through institutions that represent their interests).

The study on child health policies did not find any governance concept specific to this context, so the author used a framework including transparency – information and knowledge –, accountability – explaining what happened, and mandating corrective action –, participation – meaningful involvement of those who are affected in decision-making –, integrity – clear organizational roles and management procedures; and have a purpose –, and capacity – ability to develop policy that reflects needs, aligned with goals, and backed up with resources – as governance dimensions. The author used mortality as the outcome metric (WOLFE *et al.*, 2017).

Biobanking is the large-scale storage of biological material, and its governance needs to fulfill the use of human biological material (HBM) and associated data. Warrier *et al.* (2021) do not provide governance of biobanking and genetic research framework. However, the literature review provides evidence that biobanking and associated research should allow multi-stakeholder participation, including activists, auxiliary healthcare professionals, clinicians, community members, community representatives, field workers, institutional review board members, patients, patient and interest organizations, policymakers, project staff, research participants, scientists, social science researchers, and traditional healers. The mechanisms may include co-production, engagement of knowledge – iteration with previous knowledge generates new ones from and for participants, rules of engagement – formalize participants' values, experiences, and beliefs, and stewardship – parents or guardians, community leaders, and biobanks as “gatekeeping” or custodial roles, to protect participants' interests and safeguard their trust over time.

## 6 Food governance

In a systematic literature review on food security governance, the authors define governance in a broad sense as “The formal and informal interactions across scales between public or private entities ultimately aiming at the realization of food availability, food access, and food utilization, and their stability over time.” (CANDEL, 2014).

Such a definition exists in a system that includes food prices, agricultural trade, poverty reduction, infrastructure, education, and crisis management that cannot be looked at separately. The government is the main actor to develop food security policies. However, including

stakeholders in the decision-making process can increase the ability to respond to changes in the food system, while poor governance may generate food insecurity (CANDEL, 2014).

Co-governance is another approach used in the food safety risk context. Co-governance is defined based on the mechanisms used and participant actors, and it combines government regulation and social self-governance through the coordination and cooperation between governmental and non-governmental actors. Some of the governance instruments include government regulation, market incentives, technical regulation, social supervision, and information dissemination to ensure a higher level of food safety and achieve maximum social welfare. Since each actor will play a complementary and different role, each one will develop and implement different governance mechanisms helped by the others (WU *et al.*, 2018).

Government should a) create an institutional environment that guarantees market and social order; b) establish a compact and flexible regulatory structure; and c) build a collaborative partnership with companies and social actors. Companies should d) enhance corporate self-governance; e) ensure food quality through contractual mechanisms; and f) communicate safety information to consumers. Social actors should g) supervise government activities and force the government to correct misconduct; and h) restrict the opportunism of producers in order to remedy market failure (WU *et al.*, 2018).

Related to the food governance topic are the agri-food systems – wide-ranging actors responding to various incentives – and nutrition governance, which includes “[...] institutional structures, relationships between public and private actors or organizations, decision-making processes, and incentives. The governance must provide the capacity, power, and commitment to act, requiring accountability, responsiveness, and transparency (GILLESPIE; VAN DEN BOLD; HODGE, 2019). The authors provide the main components of effective governance, including a) political commitment and power – the conflicting interests, ideologies, and incentives of a variety of diverse participants with direct and indirect interests in nutrition as the resultant inequalities; b) leadership; c) accountability – how and why decisions are made, who decides, how power is used, shared, and balanced, whose opinions count, and who is responsible for what; d) policy coherence – alignment and synergy among government departments and agencies towards policy actions to achieve the agreed objectives; e) data and knowledge; and f) capacity – power and capacity to act.

## 7 Family governance

Suess (2014) did a literature review on family governance, a voluntary mechanism created by the family, aimed to govern and strengthen relations between the family itself and the family and the business. The governance mechanisms include family meetings, family councils, and family constitutions. The author also develops some propositions about the relationship between family governance and other factors, such as business performance, wealth increase, open communication, trust, social interaction, goal alignment, family unity, conflict mitigation and conflict resolution, business professionalization, succession planning, the success of succession, commitment from non-family managers, and families (SUESS, 2014).

## 8 Franchise governance

The literature on international franchise firms approaches governance as the proportion among ownership and decision rights (JELL-OJOBOR; WINDSPERGER, 2014) according to the property rights theory (HART; MOORE, 1990). The franchise governance modes are wholly-owned subsidiaries, joint venture franchising, area development franchising, and master franchising. The variables that influence the choice among governance modes are environmental uncertainty, behavioral uncertainty, transaction-specific investments (based on Transaction Cost Theory and Agency Theory), system-specific assets, local market assets, and financial assets (based on Resource Based Theory and Organizational Capabilities Theory) and intangibility of assets (based on the Property Rights Theory). According to the author, these variables will impact the control mode level, where higher or lower ownership and decision rights are allocated to the franchisor (JELL-OJOBOR; WINDSPERGER, 2014).

## 9 Government governance

Misuraca and Viscusi (2015) propose Information and Communication Technology (ICT) innovation as enablers for governance and policy-making. The framework is based on performance – does the government create value through services, law regulations, and other actions – openness – accessibility at the technological level – and inclusion – accessibility dimensions for the service and technology levels. These dimensions include efficiency, effectiveness, transparency, accountability, and equity (MISURACA; VISCUSI, 2015) and relate to the process, distribution, and information.

The study of Or and Aranda-Jan (2017) analyzed how the governance modes changed after the 2007-08 global crisis and showed that no single actor provides the best mode of



governance in all circumstances and contexts. The authors argue that governance should remain hybrid and dynamic, involving more than one actor at a time and considering the context in which it is located or situated.

Still, within the governance of governments, van der Veer and Haverlan (2019) explore the European Union (EU) politics on financial regulation, the set of formal and informal laws, rules, and policies that govern the conduct of actors in the financial sector and the financial markets, and economic governance, the formal and informal laws, rules, policies and activities to ensure macroeconomic, fiscal and monetary performance and sustainability of the EU and its individual member states.

van der Veer and Haverlan (2019) found that financial regulation and economic governance are influenced by politicization, which raises the relevance of polarized public opinion and expands the actors and audiences engaged in monitoring the regulations and the governance. However, regulation and governance may also be impacted by depoliticization, the “[...] processes that lower this salience, decrease these levels of contestation, and narrow these actors and audiences.” (VAN DER VEER; HAVERLAND, 2019, p. 1406). This finding indicates that regulation and governance design should consider (de-)politicization to prevent some groups from keeping regulatory issues out of the public eye by depoliticizing them or defiant members from managing to cripple economic and financial integration by politicizing it. The authors do not present any governance framework.

A study on governance interventions in weak states experiencing ongoing conflict or at risk of conflict and violence was done by Justino (2019). Although the author does not bring a governance model, it implies some elements of good governance, including a) capacity for collective action; b) strengthen accountability, legitimacy, and reach of state institutions; c) aligning social norms with systems of governance, and d) transparency.

Regarding human resources management, Mutiarin *et al.* (2019) do not present a governance framework but explore the need for human resources management in government and public administration to move from a passive view of the employee to the employee as partners in the decision-making process using ICTs.

Open innovation (OI) in the public sector exists when the government provides resources for departments, citizens, and private organizations to solve public problems. OI can occur in an on-line (digital) or off-line (non-digital) environment of Public-Public OI – collaborations between government agencies –, Public-Citizen OI – citizens engage with government to innovate –, and Public-Private OI – cooperation between private agents and

government for OI. The *non-digital Public-Public OI* uses intergovernmental collaboration and inter-agency collaboration mechanisms; *digital Public-Public OI* uses collaborative e-government, collaborative e-governance, collaborative digital government, and beyond mechanisms; *non-digital Public-Citizen OI* uses co-production, including co-commissioning, co-design, co-creation, co-implementation, co-delivery, and co-evaluation or co-assessment, and experimental co-production (e.g., innovation labs, urban living labs) mechanisms; *digital Public-Citizen OI* use crowdsourcing or citizensourcing mechanisms; *non-digital Public-Private OI* use partnerships (PPPs), collaboration, public-private innovation, and public-private co-production mechanisms; and *digital Public-Private OI* use private-initiated open government data-driven innovations, and government-initiated civic hackathons mechanisms (MU; WANG, 2022). These are the types of OI.

Each environment and context create different barrier and strategies. The barriers in a Public-Public OI move from conflicting policy framework, power imbalance, and multiple accountability disorder (who account for what) in non-digital to inflexible standard operating procedures, technical disparity, and ownership ambiguity (which agency owns, is responsible, and fund) in the digital context. In the Public-Citizen OI, barriers go from tension-avoiding administrative culture (invite citizens that do not create tensions) and citizens' lack of self-efficacy (citizens do not believe they make a difference) in non-digital to limited organizational and political capacities (politicians afraid to lose power to citizens) and citizens' digital divide (lack of skills and knowledge) on digital. In comparison, the barriers in Public-Private OI go from weak connections with citizens (OI failure due to underrepresentation) and malicious risk transfer (private actors are risk averse) in non-digital to data provenance, quality and protection problems and limited government capacity to sustain the development of innovation prototypes (hackathons ends sooner) in the digital context (MU; WANG, 2022).

Related to the governance strategies, political commitment and employment of intermediaries are common governance strategies for all types of OI. The top-down mandate decisions and intra-governmental capacity-building strategies are effective for non-digital and digital Public-Public OI. In Public-Citizen OI strategies in non-digital goes from supportive and persuasive approaches to reward and review approaches in the digital context, and in the Public-Private OI, the governance strategy change from relational contracting in non-digital to data quality management and legal framework construction in digital (MU; WANG, 2022).

Public-Private Partnership for Development (PPPD) focuses on implementing development policy. While PPP aims to implement infrastructure or service delivery, PPPD

works on a short-term program aiming for longer-term development challenges, and it is not a service contract; it uses different governance arrangements and is a collaborative governance approach that must contribute to the SDGs. PPPD faces some challenges, including a) time-span – assess short-term tangible outputs are more important than long-term outputs; b) ambitions – the idea is to transform, but sometimes objectives are unclear and direct and indirect changes are hard to capture and visualize; c) alignment – sometimes public development impact and business interests are impossible to align (e.g., gender equality or improved working conditions are difficult to measure, but indispensable for development agency); d) added value beyond project results – PPPDs are a means to an end, so, results may take a while to appear for those actors who seek immediate, measurable results (e.g., financial return); and e) relational monitoring and evaluation (M&E) practices – equity, participatory methods, and flexibility are required (PFISTERER; VAN TULDER, 2021).

PPPD needs to implement M&E and collaborating approaches simultaneously, which, according to the authors, creates a paradox. To overcome this paradox, a) the development agency and business partner need to align the impact the PPPD will deliver; b) the assessment tool needs to be mutually designed and its purpose agreed; c) the assessment of the process and the impact need to be linked; d) exchange with external PPPD actors and projects can support accountability and learning; e) self-evaluation based on these exchanges may enrich internal sense-making through ‘independent’ observations (d and e have the purpose to serve as external and internal audit and learning mechanism) (PFISTERER; VAN TULDER, 2021).

Spatial information refers to geographical data of objects on earth and can be used to leverage high-added value in conjunction with the fourth industrial revolution technologies. To provide spatial information for the public, the government of Korea decided to upgrade the national portal, and the portal governance would allow the participants to create value among stakeholders. The government fosters citizen participation through governance, a set of systemic processes for cooperation and communication to solve problems. The National Spatial Data Infrastructure Portal (NSDIP) can improve the flexibility, democracy, and participation level of network governance (YOO; KIM, 2021).

The evaluation of the governance was based on the following criteria: a) information disclosure – accessibility, accuracy, up-to-date, transparency; b) stakeholder participation – businesses and citizens, free communication, opinion suggestions, policy participation, idea suggestions, and cooperation and collaboration, improve professional knowledge of users, and educational contents; c) civil petition service – request civil petition online at any time and

place; and d) website usability – improve inefficiency and be conveniently accessible and used efficiently. Based on evaluating these four criteria, the authors provide an improvement plan for the governance of the NSDIP (YOO; KIM, 2021).

Public governance includes all the rules and actions related to public policy and services. These rules and actions can use artificial intelligence (AI) – systems that analyze varieties of data and take actions, with some degree of autonomy, to achieve some goals. The implications of AI use in public governance were studied through an SLR by Zuiderwijk, Chen and Salem (2021). The authors do not provide any governance framework, but one of the findings indicates how AI can impact different forms of public governance, including a) collaborative governance – universities, public and private; b) organizational governance – capability within the government; c) service governance – e-government; d) participative governance; e) governance through policy, strategy, processes, and measures; f) governance through legislation and regulation – law and regulations to manage and control AI technology; and g) ethical governance – ethical guidelines, monitoring and council that control the use of AI.

There are benefits to using AI in public governance, such as a) efficiency and performance benefits; b) risk identification and monitoring benefits; c) economic benefits; d) data and information processing benefits; e) service benefits; f) benefits for society at large; g) decision-making benefits; h) engagement and interaction benefits; and i) sustainability benefits, but at the same time some challenges arise, such as j) data challenges; k) organizational and managerial challenges; l) skills challenges; m) interpretation challenges; n) ethical and legitimacy challenges; o) political, legal, and policy challenges; p) social and societal challenges; and q) economic challenges. The benefits or penalties AI can promote will depend on how it will be used and, consequently, the governance framework used to govern AI (ZUIDERWIJK; CHEN; SALEM, 2021).

## 10 Meta-governance

The first article to present meta-governance is from 2015 and defines it as the combination of hierarchical, market, and network governance – governance modes – to coordinate and achieve the best outcomes from the point of view of public managers as meta-governors. Each governance style has strengths and weaknesses and differs across more than 35 dimensions. According to Meuleman and Niestroy (2015), there is only one ethical dimension, “relational values,” that defines how other people’s values are valued. The

hierarchical governance style values hegemony and separatism, network governance values pluralism and tolerance, and market governance is indifferent.

The authors argue that these principles of a “Common But Differentiated Governance” can provide a flexible instrument that takes into account different national realities, capacities, and levels of development, respects national policies and priorities, and overcomes the dichotomy between developed and developing countries (MEULEMAN; NIESTROY, 2015).

Another definition understands meta-governance as the coordination of the governance modes using different instruments, methods, and strategies to overcome governance failures, and this coordination, although any actor may exercise it, is mainly conducted by public agents. Meta-governance is often directed towards networks at a local or regional level to reach goals or implement better democratic practices – the definition of a network goes from a group of actors up to groups of interdependent actors acting towards a shared goal (GJALTEMA; BIESBROEK; TERMEER, 2020), which resemble the ecosystem definition.

Finally, the authors show through what means meta-governance is enacted, which include a) authority instruments – strict mandates and task descriptions, political priorities, and guiding principles; b) informational instruments – dissemination of knowledge, learning, and dialogue; c) economic instruments – positive and negative financial stimuli (e.g., subsidies or refund); d) process design – activities to bring actors together to institutionalize cooperation; e) process management – designing, measuring, monitoring, and improving the network’s processes; and f) collibration – find the governance modes optimal mixes (GJALTEMA; BIESBROEK; TERMEER, 2020).

## 11 Smart governance

Smart governance can have a range of definitions, and for this reason, Bolívar and Meijer (2016) present six defining elements that are used to identify government action as smart: a) use of ICTs; b) external collaboration and participation; c) internal coordination; d) decision-making process; e) e-administration; and f) outcomes. As outcomes of smart governance, the authors identified, g) economic performance of cities; h) citizen-centric services; i) social inclusion; j) ecological performance; k) interaction with the public online; l) city branding; m) efficient government; n) highly educated citizens; and o) readiness for disaster management. To achieve these outcomes, some strategies are needed, including p) legislations; q) policies; r) use of ICTs; s) an integral vision for a smart city; and t) collaborative governance (BOLÍVAR; MEIJER, 2016).

Smart cities are a multi-dimensional mix of humans, infrastructures, and social and entrepreneurial capital that are merged, coordinated, and integrated into a city using new technologies to address social, economic, and environmental problems involving multi-actor, multi-sector and multi-level perspectives (RUHLANDT, 2018). Because of its complexity and diversity, Ruhlandt (2018) decided to define smart city governance based on the set of components it contains. These components include a) stakeholders; b) structures and organizations; c) processes; d) roles and responsibilities; e) technology and data; f) legislation and policies; and g) exchange arrangements.

As a result of the smart city governance implementation, the studies reviewed by Ruhlandt (2018) identified economic, environmental, or social outcomes and behavioral or procedural changes related to efficiency, innovation, transparency, and citizen-centricity.

Smart city governance may have different drivers and barriers in developing countries, this is the study of Tan and Taeihag (2020). Governments prioritize smart city development to a) improve government efficacy in public service delivery; b) improve citizen quality of life; c) promote inclusive governance; or d) include vulnerable and disadvantaged populations. The drivers to reach these objectives include e) financing capacity of the government; f) building a strong regulatory environment that fosters the confidence and trust of citizens and investors; g) technology and infrastructure readiness; h) human capital; i) stability in economic development; j) active citizen engagement and participation; k) knowledge transfer and participation from the private sector; and l) creating a supportive ecosystem that promotes innovation and learning. While the barriers include: m) budget constraints and financing issues; n) lack of investment in basic infrastructure; o) lack of technology-related infrastructure readiness; p) fragmented authority; q) lack of governance frameworks and regulatory safeguards for smart cities; r) lack of skilled human capital; s) lack of inclusivity; t) environmental concerns; u) lack of citizen participation; and v) technology illiteracy and knowledge deficit among the citizens.

Although Tan and Taeihag (2020) do not present any governance framework, some policy implications can provide information for governance development, including a) stepping up the effort to fulfill basic infrastructure needs; b) raising revenues and diversifying financing sources for smart city development; c) constructing regulatory frameworks for smart city governance; d) developing human capital and promoting digital inclusivity; e) creating a supportive ecosystem that nurtures start-ups and promotes public-private partnerships; f) encouraging citizen participation; and g) promoting environmental sustainability.

Ullah *et al.* (2021) use the technology-organization-environment (TOE) framework to evaluate risk in sustainable smart city governance. A smart city uses ICT into core management systems to run cities. However, the increase in complexity also raises risks – a probable event that cause a positive or negative impact to the objectives of any project or initiative – which demand sustainable smart city governance. In this sense, governance need to deal with risk to improve the quality of life, the efficiency of urban operations and services while following the concepts of sustainability. The authors do not provide any governance framework, but a risk management framework for sustainable smart cities governance, with a list of risks related to a) technology (e.g., IoT management, big data integration, and blockchain management); b) organizational (e.g., organizational data safety, and cloud management); and c) external environment (e.g., disaster management, transport management, and emergency management). Risk management should identify, analyze, evaluate, treat and monitor and control the related risks.

Smart governance includes sustainable development for Tomor *et al.* (2019, p. 3), defining it “[...] as technology-enabled collaboration between citizens and local governments to advance sustainable development.” Their SLR explore the components of smart governance, including a) governmental organization – commitment, responsiveness, and operational management; b) citizen participation – degree of interaction, representativeness, and motives for participation; c) use of technology – ICTs. The outcome of smart governance remains understudied and some contextual factors that influence smart governance are the topics addressed and characteristics of issues within a policy domain, trust between actors, political and institutional environment (e.g., democracy strength, innovative atmosphere, colonial exploitation and oppression, long-term slavery, military repression, and a patrimonial, centralized government, political traditions and societal value orientation), internet reach and use, and social-spatial characteristics (e.g., geographical features, urban area, big and small cities, rural communities, social cohesion, embeddedness, community-identity) (TOMOR *et al.*, 2019).

To integrate smart governance with the urban governance literature, Jiang, Geertman, and Witte (2019) propose that smart urban governance is a flexible institutional arrangement that uses smart technologies to operate in specific socio-spatial contexts and encourages stakeholder collaboration and public participation to achieve urban sustainability. The authors propose a conceptual framework that includes three key dimensions: a) purpose; b) component; and c) context.

The purpose includes a) economics – productivity and innovation; b) politics – human-social capital and public value (social inclusion and cohesion, transparency, and trust); c) ecology – spatial capital and habitability (information and resources accumulated by cities and a place of vibrant life and livelihoods; and d) culture – psychological capital and wellbeing (positive and developmental state of an individual and satisfaction of objective and subjective needs). The component dimension includes e) institutional – governance (norms and rules, a decentralized process to promote participation and collaboration); f) technological – smart tools; and g) spatial – urban space (set of social relationships). Finally, the context dimension includes: h) social context – financial/economic barriers, accessibility of technologies, political system and institutions influence, culture and customs, and inclusive communication; and i) spatial context – geographic particularity, resource constraints, and industrialization and urbanization (JIANG; GEERTMAN; WITTE, 2019).

## 12 Transportation governance

Marsden and Reardon (2017) do not define transportation governance. However, the author approaches the topic connected to policy development, and sometimes, it is unclear if the policy formulation is the same as the governance process. Policy activity consists of five stages: a) agenda-setting; b) policy formulation; c) decision-making; d) policy implementation; and e) policy evaluation. In summary, a policy will present goals, objectives, norms, mechanisms of implementation, and measurements (MARSDEN; REARDON, 2017). In some way, the policy development is a strategic process.

## 13 Port governance

Port governance is defined by the government legislations and regulations and by the governance system, structure, and processes the port chooses to follow when it establishes managerial practices and policies, the last focused on corporate governance and shareholder interests (ZHANG *et al.*, 2018). The authors asked who governs and what is governed and found that governmental organizations and port organizations govern ports, while the port governance regimes in each country vary according to the degree of involvement of governmental organizations. The port governance governs the institutional arrangements structuring the legislation and regulations and specific port regulatory, managerial, and operating activities.



The authors also identified five groups of activities governed by port governance, including a) Services to vessels or terminals; b) Policies, regulation, and planning for the port; c) Investment activities; d) Other activities (e.g., Port security, Customs, and immigration services); and e) Logistics and supply chains services (ZHANG *et al.*, 2018).

Tijan *et al.* (2021) provide four port governance models: a) public service port; b) private port; c) tool port – private sector carries out some of the operations but under the direction of public sector managers; and d) landlord port – public sector maintains control, while the terminal management and activities are leased to private sector. According to the authors, “[...] there is no evidence as to which governance model results in better performance outcomes [...]” and governance type has no relation with the different types of port community system implemented – centralized port information and data hubs (TIJAN *et al.*, 2021, p. 9).

#### 14 Project governance

Project governance is “[...] the system through which an organization controls, directs, and steers the project toward its objectives” (LAPPI *et al.*, 2018, p. 39). It is important to note that project management deals with rational planning and technical implementation. In contrast, project governance, a subset of project management, monitors the status to enable steering and intervention to ensure the mechanisms and rules are followed in practice.

The six governance dimensions proposed by the authors include a) Goal setting – Joint performance goals, Clarity of goals, and Flexibility of goals –; b) Incentives – Rewards tied to performance (short-term), Risk allocation, Rewards tied to life cycle performance (long term), Ownership structure, and Reputation and future business –; c) Monitoring – Formal control and monitoring, and Third-party monitoring and auditing –; d) Coordination – Common project management practices, Shared culture, values, and norms, Communication and information sharing, and Change management, and Conflict resolution –; e) Roles and decision making – Role definition, Management structure, and Authority for decision making –; and f) Capability building – Actor, training and continuous learning (LAPPI *et al.*, 2018).

Derakhshan, Turner, and Mancini (2019) do not propose any framework for project management. However, the authors argue that the project governance literature leaves external stakeholders behind and explores how project governance should consider them, and the three main approaches to stakeholder are a) success; b) megaprojects – as trait-making projects intended to alter the social structure radically; and c) ethics – transparency and accountability. Some of the rights and responsibilities of stakeholders include evaluation, stakeholders as

decision makers, creators, and targets of value, the relationships among internal stakeholders, and the relationships between internal and external stakeholders.

The role of project governance – a system to direct, control, and hold account of a project – in enabling organizational strategy implemented was studied in an SLR by Musawir, Abd-Karim, and Mohd-Danuri (2020). The authors identified several forms of governance – the various terminologies and underlying concepts applied in different project contexts – including a) contractual governance and relational governance – complementary approaches; b) information technology governance and IT project governance – based on industry standards and practitioner guidelines; c) Public-Private partnership governance; d) network governance – use of network-level governance mechanisms; e) benefits governance – integration of project management and benefits management; and f) knowledge governance – direction and control of knowledge processes.

Project governance enables strategy implementation by a) selecting the right projects; b) translating organizational strategy to project strategy; c) breaking down project strategy into lower-order objectives; d) defining the project organizational structure; e) aligning project decisions with objectives; and f) ensuring that expected benefits are realized. Because there are different modes of governance and strategies at different levels “[...] it would not be appropriate to apply a single project governance system universally across all projects.” (MUSAWIR; ABD-KARIM; MOHD-DANURI, 2020, p. 9), but to choose the elements of each mode that suits project characteristics and its context, so the author proposes a typology of projects for developing context-specific project governance guidelines that mix and match different governance modes.

In a Public-Private Partnership (PPP) project, the public agent transfers selected risks to the private agent who accepts a financial return in exchange. During the shaping phase – activities performed by public and private parties before reaching financial close – of a PPP project, the formal and informal interactions of multiple changing participants within an organizational structure cannot be viewed as a pure market or a pure hierarchy. The PPP governance in this phase has been studied through the lens of contractual – contracts to reduce uncertainty and opportunistic behaviors – and relational mechanisms – to improve outcomes through incentivizing trust and collaboration (GUEVARA; GARVIN; GHAFARZADEGAN, 2020).

The feasibility of a PPP project depends on the sociopolitical feasibility – project acceptability by impacted communities, the operational feasibility – capacity to diminish

opportunism and transaction costs, and the financial feasibility – capacity to acquire required resources. Guevara, Garvin and Ghaffarzadegan (2020) found that government capacity – better planning and procurement processes and capacity to explain why PPPs are required and how to implement – and project attractiveness – increase financial feasibility and reduce uncertainty – are central in project governance to reach PPP feasibility. The authors do not present a framework, explain that there is no silver bullet solution for PPP governance, and understand that a mix of contractual and relational mechanisms based on government capacity and PPP attractiveness are welcome.

## 15 Crowdwork governance

Crowdwork platforms refer to online marketplaces that connect job providers with workers in exchange for payment. Crowdwork platform governance encompasses the control and coordination systems, work practices, standards, and policies (SHAFIEI GOL; STEIN; AVITAL, 2019). According to the authors, two main processes drive crowdwork platform governance effectiveness – the ability to achieve the desired results (including quality of work, cost of work, delivery time, and scalability of the workforce – from a job provider perspective and job provider reputation) –, control and coordination system efficiency. The former verifies the activities carried out and enables corrective actions when needed, while the second manages the dependencies among the work-related activities.

The control system is driven by a) quality control – the degree to which a submitted work meets the set requirements; b) reputation system of workers – worker's motivation system to be competent and comply with rules; and c) accountability of job providers, and the coordination system is driven by d) task management – management of task interdependencies; e) incentive management – management between worker's performance and the incentives and rewards; and f) contract management – contract management (SHAFIEI GOL; STEIN; AVITAL, 2019).

The impact of the control and coordination system efficiency mechanisms on the crowdwork platform governance effectiveness is moderated by the degree of centralization of these mechanisms. Control will have a more substantial positive effect in centralized platforms – forcing all to abide by the rules – and a weak positive effect in decentralized platforms – all stakeholders abide by their collectively-created rules. Coordination will have a strong positive effect in decentralized platforms – aligning stakeholder interests and actions – and a weak

positive effect in centralized platforms – everyone’s interests and actions are aligned by the platform control system (SHAFIEI GOL; STEIN; AVITAL, 2019).

## 16 Education governance

Verger, Fontdevila, and Parcerisa (2019) do not define governance or present any framework. However, it looks like the author understands that national large-scale assessments and test-based accountability systems – evaluating students’ learning through standardized tests – are instruments for reforming education governance.

## 17 Inter-organizational governance

The formal and informal rules of exchange between partners form the inter-organizational governance mechanisms. The explicit, formal, and written contracts are part of the contractual governance, while trust and social norms – behavioral guidelines – are part of the relational governance. Contractual governance relies on mechanisms related to TCE, agency theory, capability perspective, and control – safeguarding parties against potential opportunism – and coordination – definition of roles and responsibilities, communication and information sharing, and joint problem-solving – functions. In contrast, relational governance relies on social capital theory, social exchange theory, capability perspective, and control and coordination functions. An interplay between contractual and relational governance leads to outcomes, including exchange/relationship performance, opportunistic behavior, learning and joint problem-solving, and overall satisfaction (ROEHRICH *et al.*, 2020).

## 18 Governance summary

Table 18 summarizes the governance models according to the developed justice dimension.

Table 18 - Summary of governance models classified according to justice dimensions				
Reference	Justice Dimensions			
	<i>Distributive</i>	<i>Procedural</i>	<i>Interactional</i>	<i>Informational</i>
(O'MAY; BUCHAN, 1999)		Focus on sharing the implementation of the governance system		
(CLAVELLE <i>et al.</i> , 2016)		Accountability, professional obligation, collateral relationships, and decision-making		
(ÅBERG; BANKIEWITZ;		Board of directors service tasks		

KNOCKAERT, 2019)			
(LIMA; GALLELI, 2021)		Agency-led shareholder value Value for stakeholders Stewardship model Context dependent	
(FARAH <i>et al.</i> , 2021)		Anglo-American model Continental model Sharia Law model Hybrid models	
(VELTE, 2023)		Board TMT Ownership structure Institutional level	
(CARCELLO; HERMANSON; YE, 2011)		Expert and independent audit committees and independent boards	
(THESING; VELTE, 2021)	Compensation	Institutional context Ownership structure Board	External auditors
(ALREEMY <i>et al.</i> , 2016)		Processes that guide and control investments, decisions and practices on IT	
(AL-RUITHE; BENKHELIFA; HAMEED, 2018)		Data governance	
(CALUWE; DE HAES, 2019)		Board Structures Processes Relational mechanisms	
(IN <i>et al.</i> , 2019)		Strategy Structure Processes	
(ALGHAMDI; WIN; VLAHU-GJORGIEVSKA, 2020)		Responsibility and accountability Awareness Compliance Assessment Measurement Monitoring	Reporting
(HENRIQUES <i>et al.</i> , 2020)		IT governance Principles, policies, and frameworks Processes	Information
(SCHIEHLL; MARTINS, 2016)	CEO compensation	Ownership structure Board of directors Governance quality	Financial information
(MASEGARE; NGOEPE, 2018)		Stakeholder relationships Municipal council (board and independent committees) Risk management and IT governance	Integrated reporting and disclosure
(ZAMAN <i>et al.</i> , 2022)	Managerial incentives Work-life balance Charity and philanthropy	Internal CG External CG Internal CSR External CSR	Media

	Environmental and community practices		
(LI; TERJESEN; UMANS, 2020)	Compensation	Ownership structure Board characteristics TMT characteristics	
(SAPIAINS <i>et al.</i> , 2021)		Multi-level Global Transnational Polycentric Adaptative Experimental and transformative	
(HUITEMA <i>et al.</i> , 2009)		Experimental and flexible governance while collaborative, sharing rights, responsibilities, and power	
(RIJKE <i>et al.</i> , 2012)		Social learning and leadership as governance processes	
(MORRISON; WESTBROOK; NOBLE, 2018)		Stakeholder engagement and diversity Policies and action Flood prediction Assessment and planning Roles and responsibilities	Interaction and communication
(EDWARDS <i>et al.</i> , 2019)		Cross-scale multi-actor collaboration Bridge and match scale Social capital Community empowerment and engagement Capacity development Strong leadership Exploiting social-ecological context	Link science and decision-making
(HARIS; MUSTAFA; RAJA ARIFFIN, 2020)		Identification of policy options Policy formulation Policy implementation Policy monitoring and evaluation	
(VINK; DEWULF; TERMEER, 2013)		Organized and unorganized knowledge and power	
(BENDELL; MILLER; WORTMANN, 2011)		Agenda setting, rule making, implementation, monitoring, adjudication, and enforcement	
(CORFEE-MORLOT <i>et al.</i> , 2011)	Governments may play a key role to provide financial and technical assistance	Focuses on collective decision-making processes	Integration of science and technical information with local knowledge
(LOFT; MANN; HANSJÜRGEN S, 2015)	Balance actors' values and interests (fair income distribution)	Designing inclusive and adaptive processes	Generate knowledge and provide information

(LEPENIES <i>et al.</i> , 2018)	Effectiveness and efficiency	Coproduction		Increase usability of information or knowledge
(WUIJTS; DRIESSEN; VAN RIJSWICK, 2018)		Ecological: Meet chemical, physical, geographical and eco systemic conditions Legal: Normative framework for objectives Instruments to realize objectives Right to justice for citizens (procedural justice) Cyclic and adaptive planning and programmatic approach Involvement of stakeholders Social-Economic: Input from other policy arenas (societal interests), political ambitions Involvement of stakeholders Process focus		Just access to information
(LUPOVA-HENRY; DOTTI, 2019)	Fair distribution	State-centric Corporate-centric Network-centric	Open dialogue	Reporting Transparency
(ERNST, 2019)	Effectiveness, efficiency, and satisfaction	Procedural fairness Legitimacy	Participation process	Access to information
(HEIDINGSFELDER; BECKMANN, 2020)		Manage governance fragmentation		
(FISCHER; GIESSEN; GÜNTHER, 2020)		Agency model Structure model		
(THEES <i>et al.</i> , 2020)	Equity	Destination governance Living labs		Transparency
(BORRIE; GALE; BOSAK, 2022)	Equitable distribution of costs and benefits	Public accountability Engagement and responsiveness with stakeholders		Transparency
(SAUER; HIETE, 2020)		MSIs governance		
(PARSONS; TAYLOR; CREASE, 2021)	Distributive justice Capacity justice	Procedural justice	Recognitional justice	
(EGER <i>et al.</i> , 2021)	Inclusivity and equity in benefit distribution	Governance structure Actors Governance process		
(ZULFIQAR; BUTT, 2021)		Meta-ocean governance		Transparency
(HEINEN; ARLATI; KNIELING, 2022)		Polycentric governance Multi-level governance		
(BOURCERET; AMBLARD;	Command-and-control	Community-based governance Market-based governance State-based governance		Information

MATHIAS, 2021)				
(SPEER, 2012)	Involve citizens in decision-making over the distribution of public funds	Involve citizens in design of public policies		Involve citizens in monitoring and evaluating government spending
(KAPLAN <i>et al.</i> , 2013)	Efficiency Responsiveness	Strategic vision and direction Accountability Equity and fairness	Citizen voice and participation	Transparency Information generation
(WOLFE <i>et al.</i> , 2017)		Accountability Participation Integrity Capacity		Transparency
(WARRIER <i>et al.</i> , 2021)		Co-production Rules of engagement Stewardship	Engagement of knowledges	
(CANDEL, 2014)	Sustainable financial resource allocation	Food security policies development Coherency, coordination, and pluralism and a broad range of actors		
(WU <i>et al.</i> , 2018)	Market incentives	Promote an institutional environment to assure market and social order Build collaboration Compact and flexible regulatory structure Contractual Mechanisms		Communicate safety information to consumers Transparency and traceability
(GILLESPIE; VAN DEN BOLD; HODGE, 2019)	Political commitment and power	Leadership Accountability Policy coherence Capacity		Data and knowledge
(SUESS, 2014)	Make the rewards and demands of family participation in the business clear	Family meetings, family councils, and family constitution	Strengthening relations between the members of the business family itself	Open communication
(JELL-OJOBOR; WINDSPERGE R, 2014)		Ownership and decision rights definitions		
(MISURACA; VISCUSI, 2015)	Performance (value created) Equity	State governance system Openness Accountability Inclusion		Effectiveness Transparency
(JUSTINO, 2019)		Capacity for collective action Strengthen Accountability, legitimacy, and reach of state institutions Align social norms with systems of governance		Transparency
(KIRSOP-TAYLOR; RUSSEL; JENSEN, 2022)		NBS		
(MU; WANG, 2022)		Types of OI Political commitment		



		Intermediaries Top-down (Government) Supportive and persuasive Reward and review Relational contract Data management Legal framework		
(PFISTERER; VAN TULDER, 2021)		PPPD		
(YOO; KIM, 2021)		Stakeholder participation Civil petition service Website usability		Information disclosure
(MEULEMAN; NIESTROY, 2015)	Incentives	Meta-governance (mix of hierarchy, network, and market governance style)	Empathy, trust, and agreements	Empathy, trust, and agreements
(GJALTEMA; BIESBROEK; TERMEER, 2020)	Economic instruments	Authority instruments Process management Collaboration		Informational instruments
(BOLÍVAR; MEIJER, 2016)	Outcomes Changes to government organization Changes in position of government vis-à-vis other urban actors City improvement	Integrated vision Legislation Policy Organizational transformation Connected organizational processes Use of technology Innovation capacity		
(RUHLANDT, 2018)		Stakeholders Structures and organizations Processes Roles and responsibilities Technology and data Legislation and policies Exchange arrangements (Public-private exchanges)		Information exchange/communication
(TAN; TAEIHAGH, 2020)		Regulatory framework Wide participation		
(TOMOR <i>et al.</i> , 2019)	Motives for participation	Governmental organization Citizen participation ICTs		Communication
(JIANG; GEERTMAN; WITTE, 2019)		Governance Technological	Social inclusion	Transparency
(MARSDEN; REARDON, 2017)		Agenda-setting Policy formulation Decision-making Policy implementation Policy evaluation		
(ZHANG <i>et al.</i> , 2018)		Government legislation and regulations Corporate governance		
(TIJAN <i>et al.</i> , 2021)		Public service port governance Private port governance Tool port governance Landlord port governance		

(LAPPI <i>et al.</i> , 2018)	Incentives	Goal setting Monitoring Coordination Roles and decision making Capability building	Communication and information sharing
(MUSAWIR; ABD-KARIM; MOHD-DANURI, 2020)		Contractual governance & relational governance Information technology governance & IT project governance Public-Private partnership governance Network governance Benefits governance Knowledge governance	
(GUEVARA; GARVIN; GHAFARZA DEGAN, 2020)		A mix of contractual and relational mechanisms	
(SHAFIEI GOL; STEIN; AVITAL, 2019)		Degree of centralization of control and coordination systems	

Source: Author (2023)

## APPENDIX D – PLATFORM PERFORMANCE DATA

Table 20 present the Z-score for each platform along the years for merchants, orders, users, couriers, and the relation between order and users.

Table 19 - Z-score data

	Merchants Z-score			Orders Z-score			Users Z-score			Couriers Z-score			Orders/users Z-score		
Year	iFood	Rappi	AppJusto	iFood	Rappi	AppJusto	iFood	Rappi	AppJusto	iFood	Rappi	AppJusto	iFood	Rappi	AppJusto
2023	1,81	2,23	0,94	2,02	1,75	0,57	1,47	2,21	0,85	1,40	1,63	0,87	1,77	-0,55	-0,45
2022	1,71	0,97	0,12	1,85	1,11	0,58	1,34	1,04	0,25	1,30	1,28	0,22	1,75	-0,15	1,15
2021	1,36	0,25	-1,05	1,11	0,62	-1,15	1,21	-0,13	-1,10	1,21	0,98	-1,09	0,97	1,92	-0,70
2020	0,46	-0,46		0,20	0,24		1,09	-0,18		0,92	-0,31		-0,13	1,22	
2019	0,04	-0,49		-0,24	-0,13		0,78	-0,23		0,66	-0,49		-0,62	0,41	
2018	-0,38	-0,53		-0,34	-0,80		-0,21	-0,48		0,41	-0,67		0,03	-1,08	
2017	-0,54	-0,65		-0,52	-0,82		-0,50	-0,63		-0,29	-0,80		-0,18	-0,53	
2016	-0,69	-0,66		-0,62	-0,95		-0,80	-0,78		-0,68	-0,80		0,56	-0,39	
2015	-0,73	-0,66		-0,66	-1,01		-0,83	-0,83		-0,87	-0,81		-0,13	-0,86	
2014	-0,75			-0,69			-0,85			-0,97			-0,82		
2013	-0,76			-0,70			-0,88			-1,01			-1,03		
2012	-0,76			-0,70			-0,90			-1,04			-1,03		
2011	-0,77			-0,70			-0,91			-1,05			-1,14		

Source: Author (2023)

The list of sources from where the data related to number of merchants, orders, user, and couriers was extracted is presented on Table 20 below.

Table 20 - List of documents analyzed

#	Source
1	"En el último mes tuvimos 55.000 repartidores independientes" _ CEO de Rappi.pdf
2	01-03-2023-Press-Release-Just-Eat-Takeaway.com-Full-Year-2022-Results.pdf
3	12068-2380-PB.pdf
4	20220914-Contrato-Producto-RappiCard-Holding.pdf
5	Annual-Report-2022.pdf
6	AppJusto
7	COMUNICADO-OFICIAL.pdf
8	conexao_34.pdf
9	conexao30.pdf
10	conexao43.pdf
11	Distrito-2019-Corrída-dos-Unicornios-1sem2019_final-.pdf
12	DIVULGAÇÃO DE RESULTADO - Iguatemi.pdf
13	financial-results-booklet.pdf
14	FIPE _ iFood - Entregadores.pdf
15	FIPE _ iFood -Restaurantes.pdf
16	FIPE _ Impactos Socioeconômicos.pdf
17	food-delivery.pdf
18	food-delivery-deep-dive-presentation.pdf
19	<a href="https://about.rappi.com/rappi-dos-anos-evolucionando-al-mercado-del-delivery-en-ecuador">https://about.rappi.com/rappi-dos-anos-evolucionando-al-mercado-del-delivery-en-ecuador</a>
20	<a href="https://admin.appjusto.com.br/">https://admin.appjusto.com.br/</a>
21	<a href="https://blog.rappi.com/rappi-presenta-su-version-3-0/">https://blog.rappi.com/rappi-presenta-su-version-3-0/</a>
22	<a href="https://cnnespanol.cnn.com/2017/05/22/un-emprendedor-serial-que-apuesta-al-servicio-de-entregas-a-domicilio/">https://cnnespanol.cnn.com/2017/05/22/un-emprendedor-serial-que-apuesta-al-servicio-de-entregas-a-domicilio/</a>
23	<a href="https://d3.harvard.edu/platform-rctom/submission/rappi-colombias-version-of-amazon-com/">https://d3.harvard.edu/platform-rctom/submission/rappi-colombias-version-of-amazon-com/</a>
24	<a href="https://elcomercio.pe/economia/negocios/rappi-amazon-colombia-convirtio-emprendimiento-exitoso-pais-noticia-571752-noticia/">https://elcomercio.pe/economia/negocios/rappi-amazon-colombia-convirtio-emprendimiento-exitoso-pais-noticia-571752-noticia/</a>
25	<a href="https://forbes.co/2021/10/20/editors-picks/rappi-contrato-1-500-personas-en-medellin-para-su-area-de-servicio-al-cliente">https://forbes.co/2021/10/20/editors-picks/rappi-contrato-1-500-personas-en-medellin-para-su-area-de-servicio-al-cliente</a>
26	<a href="https://g1.globo.com/economia/pme/noticia/2013/03/empresa-cria-site-de-restaurantes-com-delivery-e-soma-200-mil-clientes.html">https://g1.globo.com/economia/pme/noticia/2013/03/empresa-cria-site-de-restaurantes-com-delivery-e-soma-200-mil-clientes.html</a>

27	<a href="https://girosa.com.br/ifood-tem-352-de-mulheres-em-postos-de-alta-lideranca-mas-apenas-5-de-entregadoras/">https://girosa.com.br/ifood-tem-352-de-mulheres-em-postos-de-alta-lideranca-mas-apenas-5-de-entregadoras/</a>
28	<a href="https://lavca.org/2018/11/13/naspers-innova-capital-and-movile-invest-us500m-in-ifood-em-portugues/">https://lavca.org/2018/11/13/naspers-innova-capital-and-movile-invest-us500m-in-ifood-em-portugues/</a>
29	<a href="https://pt.linkedin.com/pulse/estudo-de-caso-como-rappi-saiu-0-para-milh%C3%B5es-pedidosm%C3%AAs-costa">https://pt.linkedin.com/pulse/estudo-de-caso-como-rappi-saiu-0-para-milh%C3%B5es-pedidosm%C3%AAs-costa</a>
30	<a href="https://restofworld.org/2021/rappi-competencia-usuarios/">https://restofworld.org/2021/rappi-competencia-usuarios/</a>
31	<a href="https://startupeable.com/rappi/">https://startupeable.com/rappi/</a>
32	<a href="https://tecnoblog.net/noticias/2022/08/19/ifood-passa-a-ser-totalmente-controlado-pela-prosus-por-r-94-bilhoes/#:~:text=A%20empresa%20tem%20atualmente%20330,1%2C7%20mil%20munic%C3%ADpios%20brasileiros">https://tecnoblog.net/noticias/2022/08/19/ifood-passa-a-ser-totalmente-controlado-pela-prosus-por-r-94-bilhoes/#:~:text=A%20empresa%20tem%20atualmente%20330,1%2C7%20mil%20munic%C3%ADpios%20brasileiros</a>
33	<a href="https://tecnoblog.net/sobre/rappi/">https://tecnoblog.net/sobre/rappi/</a>
34	<a href="https://treinamento24.com/library/lecture/read/784629-quem-e-o-dono-do-ifood-no-brasil">https://treinamento24.com/library/lecture/read/784629-quem-e-o-dono-do-ifood-no-brasil</a>
35	<a href="https://valor.globo.com/noticia/2011/08/02/rece-m-criado-ifood-recebe-aporte-de-fundo.ghtml">https://valor.globo.com/noticia/2011/08/02/rece-m-criado-ifood-recebe-aporte-de-fundo.ghtml</a>
36	<a href="https://veja.abril.com.br/economia/ifood-quer-dobrar-numero-de-entregadores-e-reduzir-tempo-de-espera#:~:text=milh%C3%B5es%20de%20entregas,-,O%20total%20de%20entregadores%20passou%20de%2063%20mil%20para%20120,para%2050%20mil%20neste%20ano">https://veja.abril.com.br/economia/ifood-quer-dobrar-numero-de-entregadores-e-reduzir-tempo-de-espera#:~:text=milh%C3%B5es%20de%20entregas,-,O%20total%20de%20entregadores%20passou%20de%2063%20mil%20para%20120,para%2050%20mil%20neste%20ano</a>
37	<a href="https://www.baguete.com.br/noticias/22/01/2014/ifood-compra-central-do-delivery">https://www.baguete.com.br/noticias/22/01/2014/ifood-compra-central-do-delivery</a>
38	<a href="https://www.enter.co/empresas/colombia-digital/rappi-mejores-apps-colombianas-2015/">https://www.enter.co/empresas/colombia-digital/rappi-mejores-apps-colombianas-2015/</a>
39	<a href="https://www.forbes.com.mx/esta-app-colombiana-quiere-transformar-el-e-commerce-en-al/">https://www.forbes.com.mx/esta-app-colombiana-quiere-transformar-el-e-commerce-en-al/</a>
40	<a href="https://www.gazetadopovo.com.br/economia/servico-brasileiro-de-delivery-ifood-inicia-expansao-internacional-co6ipmo4h5xh6cqylivsq6bo9/">https://www.gazetadopovo.com.br/economia/servico-brasileiro-de-delivery-ifood-inicia-expansao-internacional-co6ipmo4h5xh6cqylivsq6bo9/</a>
41	<a href="https://www.infobae.com/america/colombia/2021/12/08/rappi-reconocio-los-mejores-restaurantes-en-su-premiacion-del-bigote-dorado-2021/">https://www.infobae.com/america/colombia/2021/12/08/rappi-reconocio-los-mejores-restaurantes-en-su-premiacion-del-bigote-dorado-2021/</a>
42	<a href="https://www.infobip.com/blog/rappi-delivers-with-sms-powerful-customer-segmentation">https://www.infobip.com/blog/rappi-delivers-with-sms-powerful-customer-segmentation</a>
43	<a href="https://www.iproup.com/economia-digital/3094-pedidos-ya-foresees-massive-trials-and-extension-of-responsibility-to-the-shops">https://www.iproup.com/economia-digital/3094-pedidos-ya-foresees-massive-trials-and-extension-of-responsibility-to-the-shops</a>
44	<a href="https://www.jampp.com/blog/rappi-s-journey-to-full-transparency-and-control-over-their-ua-spend">https://www.jampp.com/blog/rappi-s-journey-to-full-transparency-and-control-over-their-ua-spend</a>
45	<a href="https://www.news.ifood.com.br/institucional/">https://www.news.ifood.com.br/institucional/</a>
46	<a href="https://www.news.ifood.com.br/pesquisa-traca-o-perfil-dos-entregadores-de-aplicativo/">https://www.news.ifood.com.br/pesquisa-traca-o-perfil-dos-entregadores-de-aplicativo/</a>
47	<a href="https://www.revive.com.br/noticias/revista/a-era-dos-aplicativos/">https://www.revive.com.br/noticias/revista/a-era-dos-aplicativos/</a>
48	<a href="https://www.revistalabarra.com/es/noticias/que-ofrece-rappi-quienes-quieran-incursionar-en-domicilios">https://www.revistalabarra.com/es/noticias/que-ofrece-rappi-quienes-quieran-incursionar-en-domicilios</a>
49	<a href="https://www.swissinfo.ch/spa/colombia-empresas_millonaria-sanci%C3%B3n-contr-rappi-en-colombia-por-vulnerar-derechos-de-usuarios/48380568">https://www.swissinfo.ch/spa/colombia-empresas_millonaria-sanci%C3%B3n-contr-rappi-en-colombia-por-vulnerar-derechos-de-usuarios/48380568</a>
50	<a href="https://www.tecmundo.com.br/apps/58752-plataforma-delivery-online-comida-chega-windows-phone.htm">https://www.tecmundo.com.br/apps/58752-plataforma-delivery-online-comida-chega-windows-phone.htm</a>

51	<a href="https://www.terra.com.br/byte/numero-de-entregadores-de-aplicativo-cresce-apos-covid-19,a260720f923439424d686333ed8d32ee9arc7ofd.html">https://www.terra.com.br/byte/numero-de-entregadores-de-aplicativo-cresce-apos-covid-19,a260720f923439424d686333ed8d32ee9arc7ofd.html</a>
52	<a href="https://www.verdictfoodservice.com/news/prosus-acquire-stake-ifood/">https://www.verdictfoodservice.com/news/prosus-acquire-stake-ifood/</a>
53	<a href="https://www.virtualpro.co/noticias/rappi-la-startup-latina-que-enamoro-a-los-grandes-de-silicon-valley">https://www.virtualpro.co/noticias/rappi-la-startup-latina-que-enamoro-a-los-grandes-de-silicon-valley</a>
54	Legal _ Rappi Colombia _ Autorización de Tratamiento de datos personales Usuarios - Rappi S.A.S_.pdf
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58	LSE_JE_2014.pdf
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70	Prosus2022_Performance_Review.pdf
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## APPENDIX E – TCLE



UNIVERSIDADE DO VALE DO RIO DOS SINOS  
Unidade Acadêmica de Pesquisa e Pós-Graduação  
COMITÊ DE ÉTICA EM PESQUISA

*O Comitê de Ética é responsável por assegurar os cuidados éticos da pesquisa com seres humanos.*

### TERMO DE CONSENTIMENTO LIVRE E ESCLARECIDO – TCLE

Uma abordagem de governança baseada em justiça para ecossistemas baseados em plataformas

Responsável: Rovian Dill Zuquetto

Orientadora: Dra. Bibiana Volkmer Martins

Você está sendo convidado a participar como voluntário de uma pesquisa. Este documento, chamado Termo de Consentimento Livre e Esclarecido, visa assegurar seus direitos como participante e é assinado pelo pesquisador e por você e disponibilizado de forma online ou física conforme for apropriado. Por favor, leia com atenção e calma, aproveitando para esclarecer suas dúvidas. Se houver perguntas antes ou mesmo depois de assiná-lo, você poderá esclarecê-las com os pesquisadores. Não haverá nenhum tipo de penalização ou prejuízo se você não aceitar participar ou retirar sua autorização em qualquer momento.

**Justificativa e objetivos:** o estudo tem como objetivo verificar se plataformas que utilizam princípios mais justos tem potencial de atrair mais participantes ou gerar mais transações através da plataforma. Os resultados dessa pesquisa poderão ter implicações e contribuições teóricas para a área governança de plataforma, com reflexos no âmbito da regulação das plataformas, possibilitando um melhor alinhamento destas com as políticas públicas no fomento deste tipo de organizações.

**Procedimentos:** Participando do estudo você está sendo convidado a participar de uma entrevista com duração de aproximadamente duas horas sobre sua atuação a uma plataforma. Os pesquisadores realizarão a pesquisa online através de videoconferência ou presencial quando possível, em local ou através de software e horário que façam parte da sua rotina. As entrevistas serão gravadas em áudio.

**Desconfortos e riscos:** A pesquisa não envolve desconfortos e riscos previsíveis de ordem física e pode envolver riscos psicológicos mínimos de tensionamento na relação com funcionário ou terceiros e riscos comerciais caso os dados não sejam tratados com o devido sigilo. Além disso, todos os dados coletados serão tratados de forma agregada, preservando sempre a identidade dos respondentes e respeitando os acordos de confidencialidade. Ressalta-se também que os dados só serão acessados pelos pesquisadores da equipe. Nenhuma outra pessoa terá acesso aos dados coletados, o que afasta a possibilidade de qualquer risco.

**Sigilo e privacidade:** Você tem a garantia de que sua identidade será mantida em sigilo e nenhuma informação identificada será dada a outras pessoas que não façam parte da equipe de pesquisadores. Na divulgação dos resultados desse estudo, seu nome não será citado. Não haverá nenhum tipo de penalização ou prejuízo se você não aceitar participar ou retirar sua autorização. Além disso: o acesso aos dados será realizado apenas pelos pesquisadores, que estão plenamente informados sobre as exigências de confiabilidade; há o compromisso com a privacidade e a confidencialidade dos dados utilizados preservando integralmente o seu anonimato e imagem bem como a sua não estigmatização; os pesquisadores estabeleceram salvaguardar e assegurar a confidencialidade dos dados de pesquisa; os dados obtidos na pesquisa serão usados exclusivamente para a finalidade prevista no protocolo.

**Ressarcimento e indenização:** A pesquisa não prevê ressarcimento de despesas visto que será realizada durante a sua rotina.

**Consentimento livre e esclarecido:** Após ter recebido esclarecimentos sobre a natureza da pesquisa, seus objetivos, métodos, benefícios previstos, potenciais riscos e o incômodo que esta possa acarretar, aceito participar:

**Responsabilidade do Pesquisador:** Asseguro ter cumprido as exigências da resolução 510/2016 CNS/MS e complementares na elaboração do protocolo e na obtenção deste Termo de Consentimento Livre e Esclarecido. Asseguro, também, ter explicado e fornecido uma via deste documento ao participante. Informo que o estudo foi aprovado pelo CEP perante o qual o projeto foi apresentado e pela CONEP, quando pertinente. Comprometo-me a utilizar o material e os dados obtidos nesta pesquisa exclusivamente para as finalidades previstas neste documento ou conforme o consentimento dado pelo participante.

Nome do Participante

Assinatura do participante

Rovian Dill Zuquetto  
Pesquisador

CEP – UNISINOS  
VERSÃO APROVADA  
Em 17/10/2022

Bibiana Volkmer Martins  
Orientadora

Av. Unisinos, 950 Caixa Postal 275 CEP 93022-000 São Leopoldo Rio Grande do Sul Brasil  
E-mail: [cep@unisinos.br](mailto:cep@unisinos.br) Telefone: 3591 1122 ramal 3219

## APPENDIX F – LITERATURE AND SYSTEMATIC LITERATURE REVIEWS

We went through the literature on many topics to understand the function of governance and which mechanisms, considering the principles and practices, to understand the function of governance and which mechanisms, considering the principles and practices, affect governance outcomes and, consequently, PBE performance. The first step was to conduct a literature review on the platform economy. We used the Web of Science (WoS) database and searched on December 15, 2019. The Search expression was “platform economy” in the topic, including title, abstract, keyword, and keyword Plus. This search resulted in 123 papers.

We apply Management, Economics, and Business subjects as filters, resulting in 39 papers, and then Article document type, we end with 30 papers. We downloaded these 30 papers' data to a sheet and used Scimago Journal & Country Rank to collect the H index and set a cut-off value equal to or higher than 50 for journals. The intention was to maintain the high-impact journals in our analysis; this process resulted in 13 papers remaining in our sample.

We went back to the 30 papers and analyzed the references of these papers through VOSviewer to identify the most cited paper in our sample. Using a cut-off of 3 resulted in 25 documents being cited three or more times in our sample of 30 papers. These 25 papers went through the H index cut-off filter, resulting in 13 remaining.

The 26 papers had the title, abstract, and keywords read, eliminating three papers that used platform and platform economy to contextualize the research and examples without studying the topic. Thus, our final analysis counted 23 paper that was downloaded and read to identify the a) objective; b) theories; c) method; d) platform economy definition; e) level of analysis; and f) results.

In a second step, we conducted a literature review on “digital platform” in the WoS using the subject area of management, business, or economics, and document type article on January 31, 2020, and ended up with 88 papers. Finally, we read the title and abstract to eliminate papers not related to digital platforms and ended with 65, which we read and identified the a) objective; b) theories; c) method; d) platform definition; e) level of analysis; and f) results.

Our next step to comprehend the topics addressed in this essay was related to theories of justice. Developing JBG practices becomes critical to our model. We used the book *Justice: What is the Right Thing to Do?* and the online lecture *Moral Reasoning 22: Justice from Harvard University*, both from Professor Michael J. Sandel. This guide allows us to review justice theories and authors like Jeremy Bentham, John Stuart Mill, Milton Friedman, Robert



Nozick, Friedrich Hayek, John Locke, Immanuel Kant, John Rawls, Amartya Sen, and Aristotle. Adding to this analysis, we explored social exchange theory, equity theory, and other justice dimensions to formulate governance dimensions.

The final effort was related to governance; the cement needed to connect all the explored topics, theories, and findings related to PBE under the governance umbrella. This process allows us to make connections that otherwise could not be possible while making sense of the frontier of knowledge and exploring a diverse and divergent approach to the PBE context. Our systematic literature review (SLR) searched in the WoS by the terms “governance AND ecosystem\* AND platform\*” filtering by “articles” and the categories “Management OR Business OR Economics”, which resulted in 83 references. We filter by JCR of 1 to include only highly relevant journals, resulting in 52 papers. Next, we read the title and abstract and removed papers out of the scope of our search and two papers not available to download. Finally, we read all the remaining papers, removing those that have no relation to the topic from our sample, resulting in a final sample of 28 papers in our systematic literature review.

This SLR of platform governance led to a limited reach on the topic, and we decided to amplify our scope. We did a second SLR in WoS and Scopus for papers with “governance” on the title and “literature review” on the topic, resulting in 250 papers and 484 papers, respectively. We removed duplicates, resulting in 497 papers, and filtered by the first quartile paper to reach the highest quality level, which led to 275 papers. We read the title and abstract to remove unrelated papers, resulting in 137 papers that we read. We eliminated the paper that did a literature review that could be replicated, or we could not access it, resulting in a final sample of 98 papers that did a replicable literature review on governance. We removed the governance models presented or developed with the construct’s definitions from these papers.

During and after analyzing the data, we found that our theoretical model presented some flaws, primarily related to distributive justice, that will be further discussed. Nevertheless, in summary, distributive justice is not as important as the capability to achieve someone’s value. These findings lead us back to the literature to comprehend this new aspect, support it through the related theory, and develop the JBG model.