08, 09, 10 e 11 de novembro de 2022
ISSN 2177-3866

Stakeholder Power and Strategic Importance in Decisions About Value Distribution: A Comparative Approach Between Public and Cooperative Firms

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"Clear thinking about the organization of stakeholders and their cooperative role in value creation is needed more now than ever." (Phillips et al., 2019: 3)

1 Introduction

Cooperative firms are different from public firms (Bialoskorski Neto, 2004). Cooperatives are built on principles, such as equity, solidarity, democratic management, and commitment to the environment, and it constitute a series of guidelines that value human beings over capital (ICA, 2022). On the other hand, public firms are a corporation whose ownership is distributed amongst public shareholders through publicly traded stock shares.

Also, it is known that there is an open question about how managers/presidents decide to distribute value to stakeholders (Boaventura et al., 2020; Harrison & Bosse, 2013). Most of the stakeholder strategy frameworks reviewed emphasize the role of power in determining how to treat stakeholders. In this sense, Boaventura et al. (2020) advances explicitly measuring strategic importance influence in value distribution.

Considering that further empirical study of the interactions between stakeholders are needed, in this paper, we develop a comparative analysis between public and cooperative firms to understand the decisions about value distribution based on stakeholder power and strategic importance, considering five stakeholder groups (investor/member, customer, community, supplier, and employee). We used Boaventura et al. (2020) as inspirational study. The research question that guides this paper is: how do cooperative firms weigh stakeholder power and strategic importance when making stakeholder strategy decisions about value distribution comparing public firms? To answer it, we investigate six agricultural cooperatives located in Paraná (Brazil) considering the annual report of 2021. We also used the database available in Boaventura et al. (2020). We putted all these data together to run the regressions and compare results.

The objective of this study is to compare and analyze cooperative firms over public firms accordingly the value distribution on stakeholder strategic importance and power. Therefore, the qualitative research questions are: To compare how cooperative firms and public firms distribute value to stakeholders (1). Understand how the president decides to distribute value to stakeholders in cooperative firms (2). And to investigate the relationships between power, strategic importance, and value distribution considering all stakeholders together because the value distributed to one stakeholder influences the value available to other stakeholders (3). Our quantitative hypotheses are: The effect of the strategic importance in value distribution for stakeholders is bigger in cooperative firms than in public firms (H1) and the effect of the power in value distribution for stakeholders is bigger in cooperative firms than in public firms (H2).

Next section presents the theoretical reasoning and the hypotheses. In section three are the methods used. Section four presents the results, followed by the discussions and conclusion. Finally, the references are cited.

2 Theoretical Reasoning

2.1 Stakeholders

Stakeholders is a consolidated term used in Business and Strategy literature to define groups and individuals who can affect, or are affected by, the strategic outcomes of a firm (Freeman, 1984). The concept emerged as a leading contender to fill the normative and moral vacuum of the embryony idea that the corporation has no soul (Friedman & Miles, 2006). It is complemented by the assumption that stakeholder framework can be fruitfully used to solving problems strategically (Mitroff et al., 1979) and managing external influences (Mitroff, 1983).

The term Stakeholders also brings a comparison with the previous shareholder value maximization (SVM) approach, in terms of improving firms' performance in long-term (Clarkson, 1995; Priem et al., 2022). In the case of Stakeholder Theory, the treatment given by the firm to suppliers, employees, customers, society, and shareholders is a core postulation that has been analyzed from the perspective of fairness (Phillips, 1997), value creation (Harrison et al., 2010, 2020), power (Harrison & Bosse, 2013), strategic importance (Harrison & Bosse, 2013) and so on. Not only that. In Stakeholder studies, it is possible to perceive salience between the stakes (Mitchell et al., 1997) and a relevant and significantly effects of stakeholder interactions upon the organization (Neville & Menguc, 2006; Rowley, 1997). The way of each of the stakes are deeply intertwined through the roles that they play in an environment, forming a hierarchy of the multiplicity strength of influence between them (Neville & Menguc, 2006).

In sum, the Stakeholder approach aims for nurture relationships for value creation that explicitly incorporates the economic, social, and moral nature of relationships in and around organizations (Bridoux & Stoelhorst, 2022). But talking about value distribution the math is not quite simple. Many mediators, contexts, cultures, and the kind of the enterprise, can influence value creation and the relation between stakeholders. Although it is not the purpose of this study to exhaust the understanding of cooperative firms' concepts, the next section will highlight the idea of this type of organization in order to answer the research question proposed in this paper.

2.2 Cooperative firms and its stakeholders

Cooperatives are values-driven and principles-based firms, which consist in a "jointly owned and democratically controlled by and for their members to realize their common economic, social and cultural needs and aspirations" (ICA, 2022, p. 1).

Although not homogeneous, it was from the creation of the bases for a common language between all the nations governed by the International Cooperative Alliance (ICA), in 1895, that a cooperative movement around the globe emerge (Zylbersztajn, 2002). The seven cooperative principles are well known and established: voluntary and open membership (1), democratic member control (2), member economic participation (3), autonomy and independence (4), education, training, and information (5), cooperation among cooperatives (6), and concern for community (7) (ICA, 2022). Specially the Second Principle it suggests a Democratic Member Control 'one partner one vote'. In other words, does not matter how much the shareholder/member invested, his/her power will have the same weight on the General Assembly – which is the main body of these society – that the other members (shareholders).

It is worth mentioning that in the cooperative firm, the member (shareholder) is also the owner of the productive resources, and in addition, they can also occupy other roles, such as employee, consumer, supplier, committee members, and so on (Bialoskorski Neto, 2004; Zylbersztajn, 2002). Nonetheless, there is a consensus that this overlap of roles in its members can been seen as an organizational form with competing tensions between member/shareholder objectives and agent-managed firm objectives (Cook & Grashuis, 2018; Bialoskorski Neto, 2004; Zylbersztajn, 2002). Cooperative firms are local enterprises, embedded in the same community and in the same nation.

And, therefore, they intensely reflect the cultural and institutional characteristics of the society in which they are inserted. Unlike transnational firms with direct operations in different nations, under the influence of an international contractual logic of dominant Anglo-Saxon pattern (Bialoskorski Neto, 2004).

In Brazil, cooperative organizations are built on a relational and informal basis (Bialoskorski Neto, 2004) and all Brazilian cooperatives are regulated by Law No. 5,764 of December 16th, 1971 (Brazil, 1971). Also, cooperatives differ from other societies mainly because its voluntary membership and quorum for the functioning and deliberation of the General Assembly based on the number of members and not on capital.

Accordingly, to the mentioned Law 5,764/71 (Brazil, 1971) cooperatives can adopt by object any kind of service, operation, or activity, i.e., as consumer, agricultural, credit, and education cooperatives. And they its typology can be enrolled as: Single Cooperatives (constituted by the minimum number of twenty individuals), Central Cooperatives (those made up of at least three individuals), and Confederations Cooperatives (those made up of at least three central cooperatives). In this study we focus on six agricultural cooperatives located in western Paraná, southern Brazil. One is a Central Cooperative (Frimesa, 2021) which aggregate five Single Cooperatives in yours constitution (C.Vale, 2021; Copacol, 2021; Copagril, 2021; Primato, 2021).

To summarize, we can understand that these kinds of firms are business organizations whose management are focused on benefit all stakeholders and it is exactly what differs cooperative firms from conventional capitalist firms. In this matter, the Seven Cooperative Principles (ICA, 2022) followed by all cooperatives around the world and its people-centered approach inserted on the cooperative governance model are focused on try to maximize value for all stakeholders not only the shareholder (called "members") (Fernandez-Guadaño et al., 2020). Therefore, cooperatives are models that incorporate a desire to serve the stakeholders in their mission (Alcaniz et al., 2020). However, there is a consensus that value creation does not happen at the same intensity to all stakeholders (Boaventura et al., 2016; Boaventura et al., 2020). The following section highlights two important mediators in value distribution.

2.3 Value, strategic importance, and power

Boaventura et al. (2020), examined public firms to understand how managers distribute value to stakeholders, considering power and strategic importance. The authors tested and validated two main hypotheses: (H1) managers consider each stakeholder's power and strategic importance when deciding how to distribute value and (H2) a stakeholder's strategic importance to the firm has a greater influence than its power on the value it receives from the firm. However, taking in account the cooperatives particularities previously discussed, what if the analyzed firms were cooperatives? The results would be the same?

As we designed a comparative study, we also used the same concepts of value, strategic importance used in the inspirational paper (Boaventura et al., 2020). Then, first, value can be understanding through tangible and intangible perspectives for distinct stakeholder groups (Boaventura et al., 2020). Second, we explain value incorporating ethical considerations and the prevalence of justice and fairness in ordinary economic settings (Phillips, 2003). Third, value distribution precedes value creation (Boaventura et al., 2020). Finally, value creation and distribution ideally require scholars to account for differences in the utility functions of various stakeholders (Boaventura et al., 2020; Harrison & Wicks, 2013). But how cooperatives president decides how much value to allocate to each stakeholder?

The value in cooperatives business model Literature has provided insights mainly on the fact that cooperatives are owned by their own members. This firms create value by translating and aggregating information about their members' needs into value products and services, e. g. "cooperatives are positioned to gain significantly from their special relationship with their member-owners" (Reynolds, 2013, p. 1). Also, all the seven cooperative principles delimit the strategies that can be adopted by cooperative organizations, this is, the principles are what differ these kinds of firms from the for-profit firms with which cooperatives often compete (Zylbersztajn, 2002).

Friedman and Miles (2006) suggest the strategic interactions with stakeholders can be examined to determine their strategic importance. Such examinations will reveal the extent to which the stakeholder plays a direct role in value creation at the firm (Freeman, 2010; Garcia-Castro and Aguilera, 2015; Harrison et al., 2010; Tantalo and Priem, 2016). Considering the strategic importance as a driver of value distribution decisions, Harrison and Bosse (2013) argue that the strategic importance refers to the stakeholder's ability to contribute to the firm's competitiveness. Therefore, managers then attempt to initiate cycles of positive reciprocity with those stakeholders who can make valuable contributions to the firm by allocating value to them that is noticeably greater than expected in that setting (Harrison et al., 2010; Harrison and Bosse, 2013).

In cooperatives the strategic importance is seen since its creation, in 1844 with the group of artisans working in the cotton mills in the town of Rochdale (England), where was established the first modern cooperative business, the 'Rochdale Equitable Pioneers Society' (ICA, 2022; Reynolds, 2013). Since members participate in setting the direction of the firm, business strategies tend to be well aligned with key stakeholders. This sense of shared purpose, and a service-oriented mission, appeals to employees and provides a powerful motivational tool (Borruso, 2012).

Thus, considering those evidences, we have the first hypothesis of this study: **Hypothesis 1.** The effect of the strategic importance in value distribution for stakeholders is bigger in cooperative firms than in public firms.

As far as power is concerned, it is expected to play an important part in these decisions because the firm is dependent on the stakeholder for some resource (Savage et al., 1991), the stakeholder is centrally located in the firm's network and can influence public opinion (Rowley, 1997), the stakeholder has the ability to hurt the firm or influence the political process (Harrison and Bosse, 2013), or the stakeholder can directly influence the outcome of the firm's strategies (Ackermann and Eden, 2011).

According to Savage et al. (1991), power is expected to play an important part in the decisions because the firm is dependent on the stakeholder for some resource, this is, the stakeholder is centrally located in the firm's network and can influence public opinion (Rowley, 1997). Also, Harrison and Bosse (2013) state that power refers to the ability of the stakeholder to hurt the firm or influence the political process, or even the stakeholder can directly influence the outcome of the firm's strategies (Ackermann and Eden, 2011).

Power relations also affect the decision of the stakeholder to continue its relationship with the firm or even to invest more effort to strengthen this relationship (Bosse and Coughlan, 2016). Managers need to assess each stakeholder's potential to hurt the firm and then to distribute value among stakeholders in a way that mitigates the threat of costly negative reciprocity from the most powerful stakeholders.

Cooperatives are often formed in response to a problem in the market, usually due to an imbalance of power between a supplier of goods and the customer. By pooling members' purchasing power, a cooperative may serve as a force to lower prices or raise the quality of service or influence the market in other significant ways (Reynolds, 2013). Internally, the decision is taken by the members accordingly to the governance system, especially on the cooperative annual meetings (general assembly) which provide a valuable opportunity to encourage dialog among members (Reynolds, 2013).

Therefore, the second hypothesis of this study is: **Hypothesis 2.** The effect of the power in value distribution for stakeholders is bigger in cooperative firms than in public firms.

3 Methods

This research was carried out in four main stages: the first with a theoretical and conceptual nature, based on a literature review. The second stage was aimed at data collection, considering the content analysis (3.1). In the third stage was carried out the organization of the database and application of the models used (3.2). After the application of the model, the fourth stage of the research was concerned with the analysis and the discussion of the results (4 and 5).

3.1 Sample and data collection

As our main goal is to compare power and strategic importance between public and cooperatives firms, we used two data sources. Both data were collected in the Brazilian context once empirical studies in developing countries are need, being Brazil one of the leading countries (Boaventura et al., 2020). Also, both data used content analysis utilizing dictionary-based methods and conducted by taking the frequency counts of words once the technique is useful when employing qualitative data to answer more quantitatively oriented research questions (Banks et al., 2018). More precisely, relative frequency of association of words for measuring the dependent variable stakeholder “value” and relative frequency of words for measuring the independent variables stakeholder “power” and “strategic importance”.

According to Boaventura et al. (2020) content analysis of the reports can reveal how the writers (the executives and their representatives) view stakeholder power and strategic importance and how they distribute value to stakeholders. Although content analysis is not the most employed method in strategic management research, there are many precedents (Desai, 2014; Green & Peloza, 2015; McClelland et al., 2010).

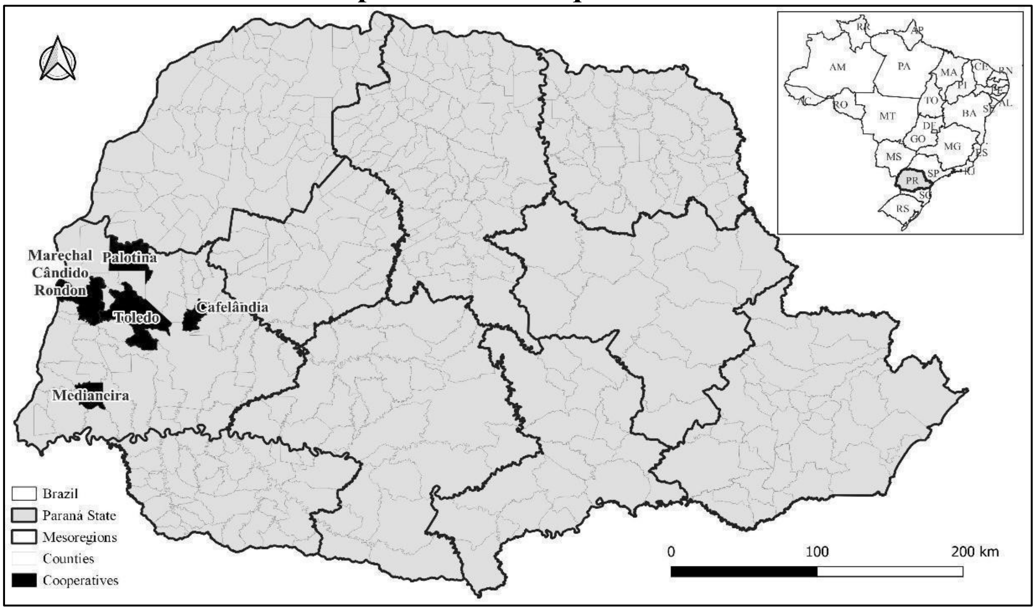
3.1.1 To study public firms

We used the data available in Boaventura et al. (2020). In relation to the study setting, they analyzed 152 firms going through an initial public offering (IPO). The IPO process was important because precedes a stage of value creation and firm growth and it makes the firm more visible to all its stakeholders. Regarding data source, Value (dependent variable) and Power and Strategic Importance (independent variables) were collected from the IPO prospectuses from publicly available data about every firm that issued an IPO in Brazil between 2003 and 2017. They collected the data through content analyses (Bardin, 2016; Weber, 1990) of the IPO prospectuses.

3.1.2 To study cooperative firms

All the six firms analyzed in this study are agricultural cooperatives located in western Paraná, Southern Region of Brazil (Figure 1). The headquarters of cooperatives Frimesa and Lar are located in the county of Medianeira (Frimesa, 2021; Lar, 2021), C.Vale is located in Palotina (C.Vale, 2021), Copacol in Cafelância (Copacol, 2021), Copagril in Marechal Cândido Rondon (Copagril, 2021), and Primato in Toledo (Primato, 2021).

Figure 1 – Location of the cooperatives' headquarters



For each of the cooperative firms included in our sample we considered the annual report of 2021, once they don't have an IPO prospectus. Though, the annual report is the document that is closest to IPO prospectus. We analyzed five stakeholder groups (investors/shareholders, community, customers, employees, and suppliers) resulting in 30 observations. The results were compared with Boaventura et al. (2020), which analyzed 152 public firms, resulting in 760 observations. Therefore, our sample are considering 790 observations.

3.1.3 Variables

In relation to the dependent variable, value, for Harrison et al. (2010) is understood as a combination of tangible and intangible outputs that the stakeholder prefers to receive from the firm. As in Boaventura et al. (2020) the content analysis considered both the tangible and intangible dimensions of value. Differently from IPO prospectus (that might be longer than 500 pages) the reports of cooperatives were shorter (about 70 pages) and straightforward, reason that explains why we did not have to choose a specific section. We analyzed the entire documents. Based on the analyses double checked for two of the researchers, we construct a rich list of words denoting "value" in each stakeholder category.

Table 1 presents the lists of words used to measure the value distributed to each stakeholder group. It is important highlight that some words differ from the words found in Boaventura et al. (2020). We do not consider this question a limitation due to different nature that the firms. For example, instead of "lucro distribuido" we found "sobras" that is very specific nomenclature to distributed profit in cooperatives contexts.

Table 1 – Words to Measure Value

Stakeholder	Words to Measure Value (in Portuguese)
Investor,	adaptou, agilidade, agregação, alimentação, ambiental, ampliação, aproveitamento, atividades, atração, bem maior, bem-estar, beneficiou, bonificação, capacitação,

Member, Shareholder	certificações, certo, comercialização, complementações, compromisso, comunicação, conformidade, conquista, consolidação, construção, coopera, cooperativas filiadas, crescemos, cuidado, cultura e lazer, desempenho, desenvolvimento, economia, educação ambiental, empregos, tamanho, energia renovável, estímulo, ética e honestidade, eventos, excelência, expansão, expectativa, exportações, faturamento, formação, fortalecimento, funcionários, ganho, gestão, habilitada, impacto, implantação, inauguração, incentivo, incorporamos, incremento, inovação, integridade, interesses, investimento, juros de capital, lei, liderança, lucro, marca, marketing, marketplace, matéria-prima, melhoria, méritos, mitigação, negociações, oportunidades, otimizar, participação, performance, prêmio, processos, produção, produtos, projetos, proteger, qualidade, recebimento, receitas, reconhecimento, recuperação, redução, registrou, relacionamento, renda, rentabilidade, resiliência, respeito, responsabilidade, resultado, retenção, salários, saúde, segurança, sobras, social, solidariedade, soluções, integração, sustentabilidade, tomada de decisões, treinamento, valor, valorização, venda, vínculos.
Customer	atividades, bem maior, bem-estar, certificações, certo, clientes, compromisso, comunicação, confiança, cuidado, desenvolvimento, empenho, encantar, estímulo, ética e honestidade, excelência, expectativa, fidelidade, foco, impacto, implantação, lei, lucro, marca, marketplace, necessidades, oportunidades, preferência, prêmio, produtos, qualidade, reconhecimento, relacionamento, relações justas, respeito, satisfação, soluções, sustentabilidade, valor, vínculos.
Community	ambiental, ampliação, aprendem, atividades, auxilia, bem maior, bem-estar, campanha, certo, compromisso, conformidade, conscientização, construção, coopera, cuidado, desenvolvimento, diversidade, doação, economia, educação ambiental, empregos, energia renovável, estímulo, ética e honestidade, expectativa, impostos, impacto, inauguração, incentivo, inclusão, incorporamos, integridade, investimento, lei, lucro, meio ambiente, oportunidades, otimizar, participação, produção, projetos, qualidade, reconhecimento, recuperação, redução, relações justas, respeito, responsabilidade, social, solidariedade, sustentabilidade, tributos, valor, vínculos.
Supplier	agilidade, ampliação, atividades, bem maior, bem-estar, beneficiou, bonificação, certificações, certo, compromisso, consolidação, cuidado, desenvolvimento, empenho, empregos, estímulo, ética e honestidade, excelência, expectativa, fornecedores, inauguração, incentivo, incremento, industrialização, integração, investimento, lei, lucro, marketplace, matéria-prima, méritos, oportunidades, prêmio, produção, qualidade, recebimento, reconhecimento, relações justas, renda, rentabilidade, respeito, resultado, supervisionada, sustentabilidade, transportadores, valor, valorização, vínculos.
Employee	atividades, bem maior, bem-estar, certo, compromisso, creches, cuidado, desenvolvimento, diversidade, empenho, estímulo, ética e honestidade, expectativa, impacto, inclusão, lei, liderança, lucro, méritos, oportunidades, prêmio, qualidade, reconhecimento, relações justas, renda, resiliência, respeito, saúde, sustentabilidade, valor, vínculos.

The same procedures were used to measure the independent variables: power and strategic importance. In order to be used in the same statistical model with the other variables and with the data available in Boaventura et al. (2020), those variables were weighted on a scale from 0 to 1. Tables 2 and 3 present the lists of words used to measure power and strategic importance to each stakeholder group.

Table 2 – Words to Measure Power

Stakeholder	Words to Measure Power (in Portuguese)
Investor, Member, Shareholder	compliance, riqueza, gestão de risco, cooperativas filiadas, entregar, assistência, automação nas operações, confiança, exigências, formar, mitigar, parecer do conselho fiscal, remuneração, respaldo, risco, sustentar.
Customer	compliance, riqueza, cooperativas filiadas, integridade, parceiro, participação.
Community	compliance, riqueza, integridade.
Supplier	compliance, riqueza, integridade, cooperativas filiadas, entregar, cadeia de suprimentos, contratos, custos, filiadas, origem.
Employee	compliance, riqueza, gestão de risco, conhecimento, dedicação, proteção, tomar decisão.

Table 3 – Words to Measure Strategic Importance

Stakeholder	Words to Measure Strategic importance (in Portuguese)
Investor, Member, Shareholder	ações de cooperação, adequação, agregar valor, alavancar, ampliação, aprimoramento, aquisições, assistência técnica, audaciosa, aumento da estrutura, avanços, capacitação, certificadas, coirmã, complementações, compliance, comunicação, conexão, confiança, conhecimento, conquistas, construção, cursos e treinamentos, defesa de interesses, diversificação, e-commerce, educação, eficiência, estratégia, eventos, evolução do faturamento, excelência, executar, expansão, exportações, firme, formação, fortalecer, gestão profissional, habilitação, implantação, inaugurados, incorporação, informação, ingressamos, inovação, integralização de capital social, investimentos, juros de capital, localização estratégica, logística, marca, melhoria, negociações, novas iniciativas, obras estratégicas, oportunidades, organização, participação, pertencimento, planejamento estratégico, produtividade, programa, qualidade, qualificação, redução de custos, renovação, reservas às integrações, revitalização, segurança, sobras, soluções, substituição, suporte, técnicas, treinamentos, valor, verticalizada, viabilizar.
Customer	compliance, conquistas, marca, trabalho em equipe, valor, reconhecimento.
Community	compliance, trabalho em equipe, fortalecer, investimentos.
Supplier	compliance, trabalho em equipe, aquisições, conhecimento, eficiência, excelência, abertura, desempenho produtivo.
Employee	compliance, trabalho em equipe, conhecimento, eficiência, excelência, ações de cooperação, aprimoramento, assistência técnica, capacitação, comunicação, conexão, cursos e treinamentos, diversificação, e-commerce, educação, formação, inovação, produtividade, qualidade, qualificação, segurança, suporte, técnicas, treinamentos, faturamento por colaborador.

To calculate all variables, we divided the resulting frequencies by the number of pages of the report, balancing the laconism and prolixity present in their text style. We controlled for three variables that might affect value distribution to stakeholders. First, we controlled for firm size by calculating the natural logarithm of total assets, once size might affect value distribution because large firms may be able to distribute a larger amount of value to stakeholders. Second, we controlled for year by including dummies variables (from 2003 to 2021). This control captures any variance that is attributable to the broader economic, business, and environments in each specific year. Third, as in Boaventura et al. (2020) there was no significant difference between the sectors compared by the authors, the variable "sector" was removed from the model, and in its place, we inserted the variable Type (Cooperative 1; Public Firm 0). We also made that because the main purpose of this paper is compare public firms and cooperative firms.

3.2 Data analysis (Models)

We use ordinary least squares (OLS) regression and Hayes SPSS Process Macro Test to test our hypotheses. That method requires some assumptions including homoscedasticity of regression residuals and absence of multicollinearity which was verified. A bootstrapping method was performed using SPSS Process Macro to examine if the value distribution considering power and strategic importance were influenced by the type of firm.

We used four equations. Equation (1) uses only covariables. Equation (2) uses strategic importance, power, and the type (cooperative or public) and their direct effects. Equation (3) tests strategic importance and type interaction. Finally, Equation (4) tests power and type interaction.

Model 1, covariate only:

$$Value_t = \beta_0 + Size_t + Stk\_type_t + Year_t + \varepsilon \tag{1}$$

Model 2, direct effects

$$Value_t = \beta_0 + \beta_1 StrategicImp_t + \beta_2 Power_t + \beta_3 Type_t + Size_t + Stk_{type_t} + Year_t + \varepsilon \quad (2)$$

Model 3, strategic importance and type interaction

$$Value_t = \beta_0 + \beta_1 StrategicImp_t + \beta_2 Power_t + \beta_3 Type_t + \beta_4 StrategicImp_t * Type_t + Size_t + Stk\_type_t + Year_t + \varepsilon \quad (3)$$

Model 4, power and type interaction

$$Value_t = \beta_0 + \beta_1 StrategicImp_t + \beta_2 Power_t + \beta_3 Type_t + \beta_4 Power_t * Type_t + Size_t + Stk\_type_t + Year_t + \varepsilon \quad (4)$$

Where:
Value = value distributed to stakeholder
StrategicImp = stakeholder's strategic importance
Power = stakeholder's power
Type = dummy variables for cooperatives
β_0 = linear coefficient of the model
β_i = slope of the linear model
Size = natural logarithm of total assets
Stk_type = dummy variable for investors/member, community, customers, employees, and suppliers
Year = dummy variables for year
ε = error.

4 Results

Table 4 shows the results from the regressions. Model 1 contains only control variables. Several of the control variables showed a significant impact on value in this model. Some results indicate a positive and significant impact on value: to years 2016 to 2021 (B .103, t 3.597, p .000, [.038/.169]) and to consumers (B .039, t 2.023, p .043, [.003/.076]). The results of two kinds of stakeholders indicate a negative and significant impact: community (B -.085, t -4.378, p .000, [-.123/-.046]) and suppliers (B -.053, t -2.726, p .007, [-.091/-.015]). The R-square was only 12%, indicating a poor fit of the model. Model 2 presents OLS regression (directed effects) with independent variables together and with the kind of firm (public 0 or cooperative 1). The model shows the influence of strategic importance and power on value. Results indicate a positive and significant impact on value. The strategic importance coefficient is .254 (t 8.518, p .000, [.179/.336]) and the power coefficient is .264 (t 9.256, p .000, [.179/.344]). The R-square of the model is 31%, which indicates a good fit with the data and improvement in comparison with Model 1. The kind of firm didn't show a significant impact on value in this model. The only control variable with a significant impact was suppliers (B -.039, t -2.279, p .023, [-.073/-.006]).

Models 3 and 4 show the results of moderation (Hayes, 2017) of the kind of firm on the independent variables and their interactive effects on value distribution. Strategic importance in Model 3 has a positive and significant impact on the value and presents an R-square at 33%. Power in Model 4 has a positive and significant impact on the value and presents an R-square at 32%. None of the control variables had a significant impact in Model 3. in Model 4 the results of two kinds of stakeholders indicate a negative and significant impact: community (B -.0375, t -2.135, p .085, [-.064/-.004]) and suppliers (B -.037, t -2.178, p .029, [-.070/-.003]).

Table 4 – Regression models

Models	Model 1		Model 2		Model 3	
	B (t-value)	LLCI - ULCI	B (t-value)	LLCI - ULCI	B (t-value)	LLCI
Mean effects						
Strategic Imp.			.254 (8.518)***	.179/.336	.306 (9.668)***	.244/
Power			.264 (9.256)***	.179/.344	.255 (9.022)***	.199/
Type (1 = cooperative)			.015 (.384)	-.093/.127	.118 (2.604)**	.029/
Interactive effects						
Strategic Imp. x Type					-.378 (-4.487)***	-.544
Power x Type						
Control variables						
Size	.019 (1.910)	-.011/.050	.050 (.779)	-.011/.034	.0069 (.7069)	-.012
STK_Type						
Employees (baseline)						
Shareholders	.028 (1.460)	-.008/.065	.017 (.997)	-.018/.052	.016 (.963)	-.017
Consumers	.039 (2.023)*	.003/.076	-.003 (-.154)	-.035/.030	-.006 (-.357)	-.040
Community	-.085 (-4.378)***	-.123/-.046	-.033 (-1.870)	-.068/.001	-.030 (-1.724)	-.064
Suppliers	-.053 (-2.726)**	-.091/-.015	-.039 (-2.279)*	-.073/-.006	-.037 (-2.179)	-.070
Years						
Years_2000-2005 (baseline)						
Years_2006-2010	-.010 (-.463)	-.053/.028	-.021 (-1.141)	-.059/.013	-.0226 (-1.240)	-.058
Years_2011-2015	.023 (.916)	-.032/.077	.039 (1.750)	-.011/.088	.0395 (1.787)	-.003
Years_2016-2021	.103 (3.597)***	.038/.169	.025 (.902)	-.032/.083	.0232 (.862)	-.029
Constant	.073 (1.106)	-.114/.271	.050 (.779)	-.087/.203	.1205 (1.898)	-.004
N	790		790		790	
R2	.122		.314		.331***	

t statistics in parentheses.

a Level of confidence for all confidence intervals in output: 95. 5000 interactions.

b Level of confidence for all confidence intervals in output: 90. 5000 interactions.

***p < 0.05, **p < 0.01, ***p < 0.001.**

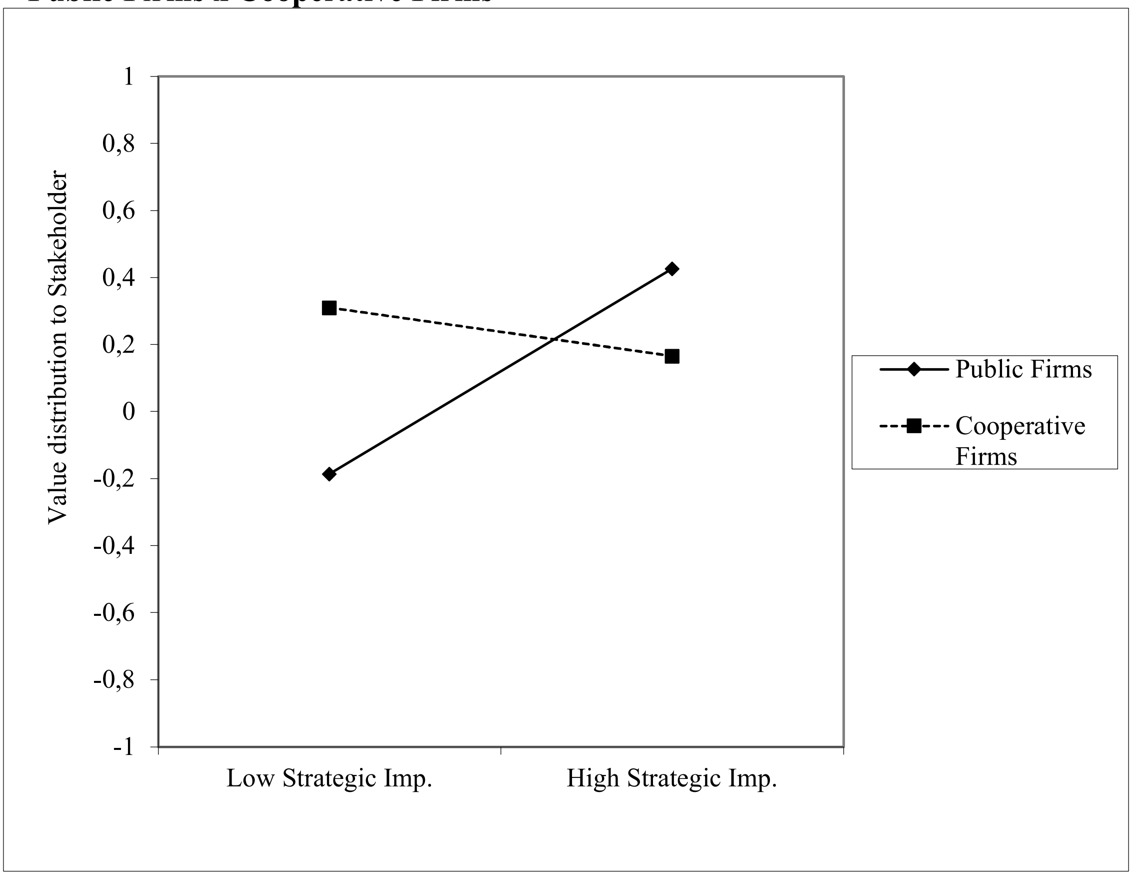
We used variables to control the influence of size, year, and type of stakeholder. To year and type of stakeholder we used dummy variables. The base values are the years 2000 to 2005 and the employees. In these models, we evaluate the influence of the power and strategic importance attributes on value distribution. The descriptive statistics of Boaventura et al. (2020) are detailed in the original article.

Hypothesis tests

The findings do not support H1. Model 3 shows that the effect of the strategic importance in value for stakeholders is bigger in public firms than in cooperative firms (Figure 2). We hypothesized the statement because, since members participate in setting the direction of the firm (Borruso, 2012), in the case of cooperatives, they could have a bigger ability to contribute to the firm's competitiveness. However, that cycles of positive reciprocity with those stakeholders are lower in cooperatives. It can be explained by the fact that cooperatives stakeholders overlap roles. As the same stakeholder can be, for example, a supplier, a shareholder, and a client, value receiving is less prominent.

In other words, since shareholders have a direct interest in the profitability of their activities, they perform well, also acting as a supplier and customer. Then, business strategies tend to be well aligned with key stakeholders, not depending on the distribution of value for their effectiveness.

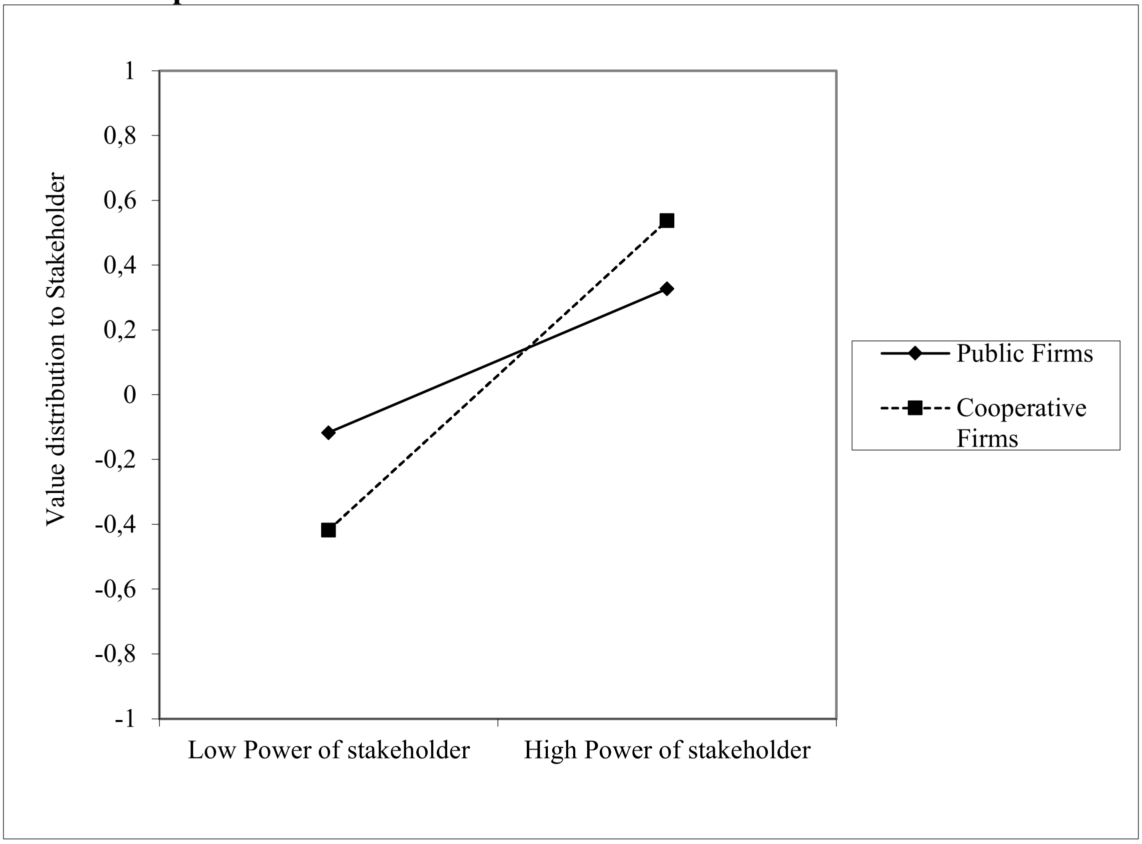
Figure 2 – Influence of Strategic Importance on Value Distribution to Stakeholders – Public Firms x Cooperative Firms



The findings support H2. Model 4 shows that the effect of the power in value distribution for stakeholders is bigger in cooperative firms than in public firms (Figure 3). It can be explained by the fact that, since their constitutions, cooperative firms amalgamate investors and suppliers, many times exercising multiple roles to respond to a problem in the market (Reynolds, 2013). This is equivalent to say that there is a more crystallized concentration of power than can be perceived in public companies. In this way, the possibility of the stakeholder to harm the activities of the cooperative is more prominent.

In the same manner, as production activities are decentralized and there is a degree of freedom for the development of business activities, cooperatives can negatively influence public opinion (Rowley, 1997) in a more pronounced and direct way than the stakeholders of public companies. As the Brazilian legislation (Brazil, 1971) obliges the sale of the production to be transferred to the cooperative, the producer (supplier) many times will not have other clients, and incidental damage to his image will be directly associated with the cooperative. Finally, in the Brazilian political scene, agroindustry cooperatives are pivots in the electoral process (Harrison and Bosse, 2013) since the Brazilian trade balance has a direct dependence on these organizations.

Figure 3 – Influence of Power on Value Distribution to Stakeholders – Public Firms x Cooperative Firms



5 Discussion and Concluding Remarks

5.1. The influence of being a cooperative firm on value distribution

This paper responds to calls for empirical research in direction a clear thinking about the organization of stakeholders and their cooperative role in value creation (Phillips et al., 2019; Bridoux & Stoelhorst, 2022). It is also extending the findings related to value distribution in relation to the power and strategic importance (Boaventura et al., 2020). To the best of our knowledge, this is the first quantitative study of the relationship between value distribution in relation to the power and strategic importance considering cooperative firms. At present, those constructs have been analyzed in relation to one another in firms going through an initial public offering (IPO). We contribute by analyzing those constructs in a special kind of firms: the cooperatives.

This drive us to another novelty of the paper that is the overlapping of stakeholder's roles in analysis of value distribution, enlarging stakeholder research in an entrepreneurial context (Ratten & Braga, 2022). Suggesting that the assemblage between cooperative's stakeholders is particularly relevant when the value is distributed between them. So, this paper extends the findings of (Boaventura et al., 2020), who demonstrated that the strategic importance and power influences on value distribution.

This paper reveals that yes, strategic importance and power has an impact on value distribution, but also de type of firm considering the same independent variables have an important impact. In this sense being a cooperative firm impacts the value distribution to stakeholders. Specially in relation to the power, commonly seeing as a competitive advantage (Reynolds, 2013), we found that is necessary to managing this variable to not turn the cooperative to be prejudiced due to power concentration.

5.2 Managerial implications

The findings of this study reveal that the kind of company matters in terms of value distribution to their stakeholders. The R2 of our model 2 (.31) that reproduces the analysis of model 4 of Boa Ventura et al. (2020) (which has an R2 of .30) is maintained. So, we get the same result as the original when adding new data. However, it can be seeing that from the moment we analyze the interactions, our R2 increases to .33 (in model 3) and .32 (model 4). So, interactions that seek to compare the direct effects from the type of company (cooperative or public firm) improve the power of explanation of stakeholder value from the predictors chosen in the model. In turn, this knowledge enables such companies, depending on this kind, to redesign their approach with employees, suppliers, community, customers, and shareholders toward efficiency and novelty.

Therefore, cooperative companies are encouraged to implement mechanisms to support their short-term and long-term challenges. For instance, to derive tangible benefits from value distribution, companies need to learn to exchange power across the entire organization e not only with direct shareholders and suppliers (that forms a binomial). It is also important to note that, when gaining new partners through cooperative association, companies should not only regard them in terms of business transactions, but also in terms of the possible power concentration. The capacity of a shareholder to interact with other shareholder affects the extent to which it can prejudice the company, and its value to other possible partners in value distribution. For those reasons, the deliberate search for an appropriate set of partners, and the legislation adequacy are of prime importance.

5.3. Limitations and future research

This study acknowledges several limitations concerning the methods and findings. First, we compared 2021 cooperatives reports with prospectus reports of public companies from 2003 to 2017. We acknowledge that this difference in historical times can be significant. Then, we recommend compare reports of the same time to better understand their interdependencies in the context of stakeholder theory.

Secondly, this study regards a few observations of cooperatives firms. We consider that a bigger number of observations could help us to have a more robust model.

Nonetheless, while the numbers of report are unbalanced (public firms vs cooperative firms) we used bootstrap solution to provide a high confidence degree (Field, 2013).

Thirdly there's a divergence in the way that Boaventura et al. (2020) and we run the content analyses. We made that analyzing the entre cooperative report manually using Atlas TI. Differently the other paper was made analyzing specific sections to measure power and strategic importance using an automatic analysis and the software NVivo.

A promising avenue for research is how the overlapping of roles in the context of stakeholder theory. For this purpose, cooperatives firms are a fruitful environment. It is important to notice however that legislation is different from country to country. Likewise, an investigation of the international equivalents cooperatives promises a fruitful research avenue.

Finally, the comparison with other sectors like government agencies presents an interesting direction for future research.

References

Ackermann, Fran, & Eden, Colin. (2011). Strategic Management of Stakeholders: Theory and Practice. Long Range Planning, 44(3), 179–196. https://doi.org/10.1016/j.lrp.2010.08.001

Alcaniz, Leire, Aguado, Ricardo, & Retolaza, Jose Luis. (2020). New business models: Beyond the shareholder approach. *Revista Brasileira de Gestao de Negocios*, *22*(1), 48–64. https://doi.org/10.7819/rbgn.v22i1.4035

Banks, George C., Woznyj, Haley M., Wesslen, Ryan S., & Ross, Roxanne L. (2018). A Review of Best Practice Recommendations for Text Analysis in R (and a User-Friendly App). *Journal of Business and Psychology*, *33*(4), 445–459. https://doi.org/10.1007/s10869-017-9528-3

Bardin, Laurence. (2016). Análise de Conteúdo. Edições 70.

Bialoskorski Neto, Sigismundo. (2004). *Economia das organizações cooperativas: uma análise da influência da cultura e das instituições* [Tese, Universidade de São Paulo]. http://www.obscoop.fearp.usp.br/dp7/biblioteca/teses/economia-das-organizações-cooperativas-uma-análise-da-influência-da-cultura-e-das

Boaventura, Joao Mauricio Gama, Barakat, Simone R., Griffin, Jennifer J., Mascena, Keysa Manuela, & Monzoni-Neto, Mario Prestes. (2016). Stakeholder Treatment: the Relationship between Contributions Provided and Attention Received. Academy of Management Proceedings, 2016(1), 16213. https://doi.org/10.5465/ambpp.2016.16213abstract

Boaventura, João Maurício Gama, Bosse, Douglas A., Manuela Cunha de Mascena, Keysa, & Sarturi, Greici. (2020). Value distribution to stakeholders: The influence of stakeholder power and strategic importance in public firms. *Long Range Planning*, *53*(2), 1–18. https://doi.org/10.1016/j.lrp.2019.05.003

Boaventura, João Maurício Gama, Bosse, Douglas A., Manuela Cunha de Mascena, Keysa, & Sarturi, Greici. (2020). Value distribution to stakeholders: The influence of stakeholder power and strategic importance in public firms. Long Range Planning, 53(2), 1–18. https://doi.org/10.1016/j.lrp.2019.05.003

Borruso, Michael T. (Ed.). (2012). McKinsey on Cooperatives. McKinsey & Company. https://www.mckinsey.com/~/media/mckinsey/dotcom/client_service/strategy/mckinsey on cooperatives/pdfs/mck_on_cooperatives-full_issue.pdf

Bosse, Douglas A., & Coughlan, Richard. (2016). Stakeholder Relationship Bonds. *Journal of Management Studies*, *53*(7), 1197–1222. https://doi.org/10.1111/joms.12182

Brazil. (1971). *LEI Nº 5.764, DE 16 DE DEZEMBRO DE 1971.* Política Nacional de Cooperativismo. http://www.planalto.gov.br/

Bridoux, Flore, & Stoelhorst, J. W. (2022). Stakeholder theory, strategy, and organization past, present and future. Erasmus School of Management, 1–18.

C.Vale. (2021). Relatório Anual. C.Vale Cooperativa Agroindustrial. https://www.cvale.com.br/demonstracoes/2021/relatorio/site/

Clarkson, M. E. (1995). A stakeholder framework for analyzing and evaluating corporate social performance. Academy of Management Review, 20(1), 92–117.

Cook, Michael L., & Grashuis, Jasper. (2018). Theory of cooperatives: Recent developments. *The Routledge Handbook of Agricultural Economics*, 748–759.

Copacol. (2021). Relatório do Conselho de Administração. Coopacol Cooperativa Agroindustrial Consolata. https://www.copacol.com.br/copacol/relatorios-anuais/2021

Copagril. (2021). Relatório Anual. Cooperativa Agroindustrial Copagril. https://www.copagril.com.br/relatorios

Desai, Vinit M. (2014). The Impact of Media Information on Issue Salience Following Other Organizations' Failures. *Journal of Management*, *40*(3), 893–918. https://doi.org/10.1177/0149206311418663

Fernandez-Guadaño, Josefina, Lopez-Millan, Manuel, & Sarria-Pedroza, Jesús. (2020). Cooperative entrepreneurship model for sustainable development. *Sustainability (Switzerland)*, *12*(13). https://doi.org/10.3390/su12135462

Freeman, R. Edward. (1984). Strategic Management: a stakeholder approach. Pitman Publishing.

Friedman, A. L., & Miles, S. (2006). History and the nature of stakeholder theorizing. In Stakeholders: Theory and Practice. (pp. 19–35). Oxford University Press.

Frimesa. (2021). Relatório Anual. Frimesa Cooperativa Agroindustrial. https://www.frimesa.com.br/pt/relatorios

Garcia-Castro, Roberto, & Aguilera, Ruth V. (2015). Incremental Value Creation And Appropriation In A World With Multiple Stakeholders. Strategic Management Journal, 36, 137–147. https://doi.org/10.1002/smj

Harrison, Jeffrey S., & Bosse, Douglas A. (2013). How much is too much? The limits to generous treatment of stakeholders. Business Horizons, 56(3), 313–322. https://doi.org/10.1016/j.bushor.2013.01.014

Harrison, Jeffrey S., & Wicks, Andrew C. (2013). Stakeholder Theory, Value, and Firm Performance. Business Ethics Quarterly, 23(1), 97–124. https://doi.org/10.5840/beq20132314

Harrison, Jeffrey S., Bosse, Douglas A., & Phillips, Robert A. (2010). Managing for stakeholders, stakeholder utility functions, and competitive advantage. Strategic Management Journal, 31(1), 58–74. https://doi.org/10.1002/smj.801

Harrison, Jeffrey S., Phillips, Robert A., & Freeman, R. Edward. (2020). On the 2019 Business Roundtable "Statement on the Purpose of a Corporation." Journal of Management, 46(7), 1223–1237. https://doi.org/10.1177/0149206319892669

ICA. (2022). International Cooperative Alliance (ICA). https://www.ica.coop/en

Lar. (2021). Relatório e Balanço. Lar Cooperativa Agroindustrial. https://www.lar.ind.br/institucional/relatorios-de-balanco/

Mitchell, Ronald K., Agle, Bradley R., & Wood, Donna J. (1997). Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts. Academy of Management Review, 22(4), 853–886. https://doi.org/10.5465/AMR.1997.9711022105

Mitroff, I. I. (1983). External Influences on Managers. In Stakeholders of the

organizational mind: toward a new view of organizational policy making. Jossey-Bass Publishers.
Mitroff, I. I., Emshoff, J. R., & Kilmann, R. H. (1979). Assumptional Analysis: A Methodology for Strategic Problem Solving. Management Science, 25(6), 583–593. https://doi.org///www.jstor.org/stable/2630329
Neville, Benjamin A., & Menguc, Bulent. (2006). Stakeholder multiplicity: Toward an understanding of the interactions between stakeholders. Journal of Business Ethics, 66(4), 377–391. https://doi.org/10.1007/s10551-006-0015-4
Phillips, R. (2003). Stakeholder Theory and Organizational Ethics. Berrett-Koehler Publishers.
Phillips, Robert A. (1997). Stakeholder Theory and A Principle of Fairness. Business Ethics Quarterly, 7(1), 51–66. https://doi.org/10.2307/3857232
Phillips, R. A., BARNEY, J., Freeman, R. E., & Harrison, J. S. (2019). Stakeholder CHAPTER. The Cambridge handbook of stakeholder theory, 3.
Priem, Richard L., Krause, Ryan, Tantalo, Caterina, & Mcfadyen, M. Ann. (2022). Promoting long-term shareholder value by “competing” for essential stakeholders: a new, multisided market logic for top managers. Academy of Management Perspectives, 36(1), 93–110.
Primato. (2021). Relatório Anual. Primato Cooperativa Agroindustrial. https://primato.coop.br/downloads/
Ratten, Vanessa, & Braga, Vitor (Eds.). (2022). *Stakeholder Entrepreneurship*. Springer Singapore. https://doi.org/10.1007/978-981-16-7091-6
Reynolds, Anne. (2013). Defining the Value of the Cooperative Business Model: An Introduction. University of Wisconsin Center for Cooperatives, 1–6. https://community-wealth.org/sites/clone.community-wealth.org/files/downloads/paper-reynolds13%5B1%5D.pdf
Rowley, Timothy J. (1997). Moving Beyond Dyadic Ties: A Network Theory of Stakeholder Influences. Academy of Management Review, 22(4), 887–910. https://doi.org/10.5465/amr.1997.9711022107
Savage, Grant T., Nix, Timothy W., Whitehead, Carlton J., & Blair, John D. (1991). Strategies for Assessing and Managing Organizational. Academy of Management Executive, 5(2), 61–75.
Tantalo, Caterina, & Priem, Richard L. (2016). Value Creation Through Stakeholder Synergy. Strategic Management Journal, 37, 314–329. https://doi.org/10.1002/smj.2337
Weber, R. P. (1990). *Basic content analysis* (49th ed.). Sage.
Zylbersztajn, Décio. (2002). Quatro estratégias fundamentais para cooperativas agrícolas. *XIV Seminário de Política Econômica: Cooperativismo e Agronegócio*, *XIV*, 1–21.