



## Value distribution to stakeholders: The influence of stakeholder power and strategic importance in public firms



João Maurício Gama Boaventura<sup>a,\*</sup>, Douglas A. Bosse<sup>b</sup>,  
Keysa Manuela Cunha de Mascena<sup>c</sup>, Greici Sarturi<sup>d</sup>

<sup>a</sup> Universidade de São Paulo, FEA - Departamento de Administração, Av. Luciano Gualberto, 908, São Paulo, SP, Brazil

<sup>b</sup> University of Richmond, Robins School of Business, 102 UR Drive - Richmond, VA, USA

<sup>c</sup> Universidade de Fortaleza, Programa de Pós-Graduação em Administração, Av. Washington Soares, 1321, Fortaleza, CE, Brazil

<sup>d</sup> Universidade Federal de Santa Maria, Departamento de Administração, Av. Independência, 3751, Palmeira das Missões, RS, Brazil

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### ABSTRACT

Stakeholder strategy research seeks to explain how various stakeholder contexts affect the ways firms treat their stakeholders and the effects of these choices on overall firm performance. The dominant logic in this conversation frames a two-step process in which value is created by a firm before managers can distribute that value among the stakeholders. The stakeholder's power, or its ability to threaten the firm in some way, is commonly considered the primary factor in the second step value distribution process. However, we develop and test an argument that the ways managers engage with stakeholders to co-create value result in the stakeholder's strategic importance having more influence than power in the value distribution decision. The logic underlying this argument reverses the familiar two-step process so that it starts with value distribution. The implication is that firms arguably improve their overall performance by distributing more value to those stakeholders who are strategically important than to those stakeholders who exploit their bargaining power to threaten the firm. We find support for this novel explanation with an original dataset covering every firm that completed an IPO in Brazil between 2003 and 2017.

### Introduction

Firms co-create value across a network of actors who each have a stake in the processes and outcomes of the firm (Freeman, 1984; Freeman et al., 2007; Freeman et al., 2010). In striving to understand and explain the factors that drive firm-level performance, strategy scholars develop and test theories that encompass these processes through which value is co-created, how the value is distributed among stakeholders, and the effects of value distribution schemes on subsequent value co-creation (Barney and Harrison, 2018). Of these processes, this study contributes to the understanding of how managers decide to distribute value to stakeholders. The mainstream literature points to stakeholder bargaining power as a fundamental factor (Mitchell et al., 1997; Neville et al., 2011) or even the most important factor (Parent and Deephouse, 2007) in manager's value allocation decisions. However, consensus on this issue has not been reached (Bridoux and Vishwanathan, 2018). This unfinished discussion is the theoretical gap addressed in this paper. Building on a new stream of research, we will argue that strategic importance is a stronger factor in manager's value

\* Corresponding author.

E-mail addresses: [jboaventura@usp.br](mailto:jboaventura@usp.br) (J.M.G. Boaventura), [dbosse@richmond.edu](mailto:dbosse@richmond.edu) (D.A. Bosse), [keysamascena@unifor.br](mailto:keysamascena@unifor.br) (K. Manuela Cunha de Mascena), [greicisarturi@hotmail.com](mailto:greicisarturi@hotmail.com) (G. Sarturi).

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distribution decisions than stakeholder power.

In the stakeholder theory literature, the balance of power in firm-stakeholder relationships is one of the most frequently studied factors that determine how firms treat their stakeholders (Barnett et al., 2018; Bridoux and Vishwanathan, 2018). Verbeke, Osiyevskyy and Backman (2017: 685) go so far as to argue, “Satisfying the requirements of powerful stakeholders may be a prerequisite for an organization's survival, even at the expense of micro-level economic value creation and capture.” Bargaining power is also identified as managers' primary consideration when distributing value according to a wide range of other theories, including resource-based theory (Barney, 2018), transaction cost economics (Williamson, 1985), agency theory (Jensen and Meckling, 1976), and resource dependence theory (Pfeffer and Salancik, 1978). These theories argue the most powerful stakeholders appropriate the greatest value from the firm by threatening it, either implicitly or explicitly. A recent clarification of resource-based theory goes as far as proposing the value a firm appropriates is determined by the bargaining power of its non-shareholder stakeholders (Barney, 2018). The prevalence of this argument is a result of the dominant logic that value creation and value distribution are understood as a two-step process, where value is created in the first step and then distributed by managers to the various stakeholders in the second step (Coff, 1999).

However, based on a growing stream of research in stakeholder theory, we reframe this phenomenon, proposing a novel and competing explanation for how managers engage with stakeholders. Emphasizing each stakeholder's potential to enhance the firm's competitiveness, referred to as the stakeholder's strategic importance, this branch of the theory suggests managers actually distribute various forms of value to stakeholders *before* those stakeholders take reciprocal actions that contribute to the firm's value creation processes (e.g., Harrison and Bosse, 2013). We expand on this logic and argue that managers prioritize the stakeholder's strategic importance above their bargaining power. In this explanation of the value creation process, managers first distribute value to stakeholders, primarily according their strategic importance, and then the stakeholders contribute to value creation through their interactions with the firm. This research stream starts with an assumption that justice and fairness considerations underlie much of the behavior of firms and their stakeholders, and that value creation is greatly affected by cycles of reciprocity among and between firms and their stakeholders (e.g., Bosse et al., 2009; Harrison et al., 2010). This accounts for the positive and negative reciprocity stakeholders exhibit towards the firm based on their perceptions of justice and injustice, respectively, and the resulting implications for firm-level performance (Bosse et al., 2009).

The study reported here contributes to our understanding of these phenomena by developing hypotheses and providing evidence about how managers weigh stakeholder power and strategic importance when making stakeholder strategy decisions about value distribution. Based on our examination of all 152 firms that completed the IPO process in Brazil between 2003 and 2017, this study provides three contributions to the understanding of stakeholder strategy and value distribution. First, contrary to much established theory, we find evidence supporting our argument that firms distribute greater value to those stakeholders who can help the firm create more value in the future than to those stakeholders who exploit their bargaining power to threaten the firm. Stakeholders' strategic importance is not just a significant consideration when deciding how to distribute value to stakeholders; it seems to be a primary consideration. Second, our results can be interpreted as support for the theory that value creation and distribution can be understood to happen in reverse order: value distribution precedes value creation. Finally, we expand the ways scholars can study and understand the concept of value in economic exchanges by developing a comprehensive measure of the things stakeholders value that considers both tangible and intangible preferences at the stakeholder level of analysis that is consistent with new perspectives in the stakeholder and strategy literature.

## Literature review and theoretical foundation

### *Stakeholder strategy – traditional 2 × 2 frameworks focus on power*

Scholars have developed a number of frameworks that attempt to articulate the conditions under which firms decide how to treat their stakeholders and the implications of these choices on overall firm performance. The bulk of the stakeholder strategy literature as reflected in this review reveals a consistent application of the general perspective that the firm assesses its stakeholders on some limited number of dimensions and then it chooses a strategy for responding to each stakeholder. Although none of these frameworks has gained universal acceptance, two features are noticeably common among them. First, they can be represented in a parsimonious 2 × 2 matrix. Second, they often place primary focus on the stakeholder's power relative to the firm. We build on both of these features below.

Freeman (1984) original framework proposes generic strategies based on the stakeholder's relative cooperative potential and relative competitive threat. A 2 × 2 matrix that combines the ratings of relative cooperative potential (high or low) and relative competitive threat (high or low) forms four quadrants in which stakeholders are categorized as swing, offensive, defensive, and hold. Competitive threat is a form of power in this context. This framework suggests firms seek to deal with stakeholders that have high cooperative potential and high competitive threat (swing stakeholders) by changing the rules of interaction in ways that mitigate the competitive threat while leveraging the cooperative potential. Stakeholders with low cooperative potential and high competitive threat (defensive) should be handled in ways that reduce the firm's vulnerability. The strategy for stakeholders that have high cooperative potential and low competitive threat (offensive) is to exploit any opportunities for gain by seeking to ensure the stakeholder views the firm favorably. Firms should better understand those stakeholders with low cooperative potential and low competitive threat (hold) so that any latent value they could provide the firm can be developed. Supplementing this foundational framework, managers are further encouraged to pursue each of these stakeholder strategies while paying careful attention to the ongoing and daily interactions they have with their stakeholders. Managers can best support value creation by remaining actively

engaged with stakeholders through two-way communication processes, sympathetic dialog, and collaborative negotiation (Freeman et al., 2007).

The constructs of competitive threat and cooperative potential can also be used to build a  $2 \times 2$  matrix of stakeholder strategies that are based on the relative dependence of the firm versus its focal stakeholder (Savage et al., 1991). The threat potential of a stakeholder is an indicator of power based on the organization's dependency on that stakeholder. The potential for cooperation refers to the stakeholder's ability to expand its interdependence to the organization. In this stakeholder strategy framework, stakeholders are classified into four types (supportive, marginal, non-supportive, and mixed blessing), and a new set of generic strategies describe how firms respond to each of these types, namely: involving, monitoring, defending, and collaborating (Savage et al., 1991).

Some stakeholder strategy frameworks define strategy in terms of how the firm should respond based on characteristics of the stakeholder's claims, rather than the stakeholder's threat or cooperative potential. Four generic strategies represent the firm's perceived responsibility level toward its stakeholders' claims. Firms may choose to be (1) reactive: denying responsibility; (2) defensive: admitting responsibility but fighting it; (3) accommodative: accepting responsibility; or (4) proactive: anticipating responsibility (Clarkson, 1995). Clearly, some claims are more powerful than others based on how much pressure managers perceive to address them.

Finally, managers may make some decisions about how to engage with a stakeholder based on the stakeholder's expected reaction to a given strategy. This framework argues top management teams separately consider (a) the interest a stakeholder group has in a given strategy and (b) the power that stakeholder group has in influencing the outcome of that strategy (Ackermann and Eden, 2011). Varying levels of stakeholder interest and power necessitate different strategic approaches and result in different types of relationships with stakeholders. However, managers are constrained to the extent they do not like to formalize evaluations of stakeholder interest and power that they perceive as overly manipulative (Ackermann and Eden, 2011). Taken together, this traditional way of thinking, based in the mainstream literature, positions power as the main factor driving value distribution to stakeholders (Parent and Deephouse, 2007).

#### *Stakeholder strategy – new logic focuses on stakeholder value creation*

While all of the stakeholder strategy frameworks reviewed thus far emphasize the role of power in determining how to treat stakeholders, none of them explicitly sees stakeholder strategy as a process that starts with value distribution to stakeholders. However, the idea of proposing strategies that start with value distribution to stakeholders is attracting attention. In this section, we explain why value distribution might logically come before value creation and how that theory elevates stakeholder strategic importance as a factor in value distribution decisions.

Stakeholder theory is acknowledged among strategy theories for its explicit inclusion of ethical considerations (Donaldson and Preston, 1995; Freeman, 1984). One specific way scholars have incorporated ethical considerations in this literature is by highlighting the role and prevalence of justice and fairness in ordinary economic settings (Phillips, 2003). Building on an impressively large body of findings in a range of related fields (e.g., behavioral economics (Fehr and Gächter, 2000); sociology (Cropanzano and Mitchell, 2005); social psychology (Cialdini, 1984); and psychology (Rabin, 1998)), extensions of stakeholder theory assume most, or at least many, people are boundedly self-interested rather than exclusively self-interested (e.g., Bosse et al., 2009; Tantaló and Priem, 2016).

Whereas the more common assumption of exclusive self-interest is that people make decisions only to maximize their own utility, the less common assumption of bounded self-interest is that people also consider how *others* are being treated, too. Boundedly self-interested people do primarily seek to increase their own utility, but their self-interested behaviors are bounded when they perceive the treatment they – or some other persons – are receiving is exceptionally below or above the treatment they expect in that setting (Jolls et al., 1998). Treatment outside these boundaries is perceived as a violation of their individual expectations of justice or fairness (Adams, 1965; Fehr and Gächter, 2000).

The mechanism through which people exercise boundedly self-interested behavior is reciprocity (Jolls et al., 1998). When people experience treatment that is largely consistent with their expectations of justice, they behave in ways that are consistent with the exclusive self-interested behavior assumption. However, when they experience treatment that they perceive is below an acceptable threshold in that situation, they negatively reciprocate towards the party responsible for the low treatment. Negative reciprocity is costly to both the actor and the target of that reciprocity, so is not consistent with the exclusive self-interest assumption (Fehr and Gächter, 2000). On the other hand, when people experience treatment that is more favorable than their perceived threshold in that situation, they positively reciprocate towards the party responsible for the beneficial treatment. Positive reciprocity is costly to the actor but beneficial to the target. In sum, negative reciprocity punishes parties that behave in ways others perceive as unjust and positive reciprocity rewards parties that tend to behave in ways that are more generous towards others.

Both of these assumptions – exclusive self-interest and bounded self-interest – incorporate the expected effects of a person's behavior on their utility function. As applied in stakeholder theory, the concept of utility helps to reflect stakeholder value and, at the same time, expresses the stakeholder's preferences for various outputs they might receive from firms. In this literature, a stakeholder's utility function includes both tangible economic components as well as intangible, subjective or even emotional components (Harrison et al., 2010). Designing studies about value creation and distribution ideally requires scholars to account for differences in the utility functions of various stakeholders (Harrison and Wicks, 2013).

Our study is designed to test this new logic. Table 1 compiles a broad list of the types of tangible and intangible utility the literature provides for five distinct stakeholder groups. These five groups include the firm's primary stakeholders (employees, investors, customers, and suppliers) and the communities in which they operate. As we explain in more detail in the methods section,

**Table 1**  
Types of value for stakeholders.

Stakeholder	Utility Function Components	References
Employees	Respect, Inclusion Salary and Benefits, Corporate Social Responsibility, Perceived Fairness of the Working Environment, Job Characteristics and Skill Variety, Work-Life Balance Policies Higher Wages and Highest Safety and Pleasant Working Environment Remuneration, Employment Security, Conditions, Training Physical health	Harrison and Wicks (2013) (Tantalo and Priem, 2016:322)  Brown and Forster (2013) Cragg and Greenbaum (2002)
Investors	Information, Transparency Expected Return, Business Risk, Investment Time Horizon, Corporate Social Responsibility Dividends  Market Price	Harrison and Wicks (2013) (Tantalo and Priem, 2016: 322) (Brown and Forster, 2013; Clarke, 1998) Clarke (1998)
Community	Perceived Impact on Community Number and Types of Jobs Created, Taxes, Support Infrastructure Required, Local Clusters Social programs	Harrison and Wicks (2013) (Tantalo and Priem, 2016: 322) Reynolds et al. (2006)
Customers	Products with Quality and Functionality, Business Repetition, Respect Perceived Value, Product's Price, Accessibility - time required to purchase the product, time required to master using the new product-, Perceived Quality, Environmental Corporate Responsibility and "Ecofriendly" Product Service, Safety, Value for Money	Harrison and Wicks (2013) (Tantalo and Priem, 2016: 322)  Clarke (1998)
Suppliers	Nature of Payments (i.e., Size, Speed) Ordering Procedure and Size, Long-term Relationships, Price Received, Client Payment Habits and Payment Terms, Image and Reputation of the Customer, Possibility for Cross Selling and Potential for Follow-up Business Stable and Enduring Relationship	Harrison and Wicks (2013) (Tantalo and Priem, 2016: 322)  (Clarke, 1998; Deutsch and Valente, 2013).

the IPO prospectus filed by every firm in Brazil that goes public provides an original source of objective data on these components of the utility function that is common among the members of each of these five stakeholder groups. For example, some of the things customers value include products that are characterized by quality and functionality (Harrison and Wicks, 2013), environmental corporate responsibility (Tantalo and Priem, 2016), and value for their money (Clarke, 1998). All of the components of the various stakeholder groups' utility functions listed in Table 1 are consistent with the concept of firm-level performance in stakeholder theory and are captured in our novel dataset.

One other assumption that is key to this theory is that all stakeholders are engaged with the firm via incomplete contracts. This means that precisely what the stakeholders get from the firm, and precisely what they provide to the firm, are not completely specified in advance and can, therefore, vary. Under these two assumptions, stakeholder theory suggests that how much effort or investment a stakeholder can in the firm is contingent on her perceptions of how just or fair the firm is in its ordinary interactions with its stakeholders (Harrison et al., 2010). If the firm distributes roughly the same value to stakeholders that most stakeholders expect to receive, then the stakeholders generally provide the same effort and level of investment in the firm that is commonly expected in that situation. However, if the firm distributes noticeably less value to stakeholders than is expected, the stakeholders negatively reciprocate in ways that are costly to the firm. If the firm distributes value to stakeholders that is noticeably above what they expect in such situations, they positively reciprocate in ways that add more value to the firm. Taken in aggregate, the neutral, negative, and positive reciprocal behavior of a firm's stakeholders has a direct impact on its overall firm-level performance (Bosse et al., 2009).

This logical sequence of actions in the value creation and distribution process of the firm explicitly recognizes the role of value distribution decisions on the subsequent value creation potential of the firm. That is, distribution precedes value creation when people are assumed boundedly self-interested and contracts are assumed incomplete. This perspective draws attention to the amount of value that managers distribute to stakeholders because these decisions ultimately drive firm performance. If managers influence firm performance based on how they allocate value to stakeholders, as suggested here, then how do they decide how much value to allocate to each stakeholder?

#### *Power and strategic importance as drivers of value distribution*

Building on the existing frameworks of stakeholder strategy reviewed above, the potential of under- or over-distribution of value for a particular stakeholder can be analyzed by using two dimensions: stakeholder power and strategic importance (Harrison and Bosse, 2013). We will analyze both dimensions in terms of their isolated influence and their relative influence on value distribution decisions.

The theoretical framework we are examining focuses on the constructs of stakeholder power and strategic importance as

significant influences in manager's decisions to distribute value to stakeholders. As explained above, regardless of when the value distribution occurs, stakeholder strategy scholars often identify power as an important factor in value distribution decisions (e.g., Ackermann and Eden, 2011; Freeman, 1984; Freeman et al., 2007; Friedman and Miles, 2002; Rowley, 1997; Savage et al., 1991). Power 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). 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.

The concept of strategic importance as a driver of value distribution decisions is a less frequent consideration in this literature. Strategic importance refers to the stakeholder's ability to contribute to the firm's competitiveness (Harrison and Bosse, 2013). 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). 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).

Pulling these two constructs together into one framework suggests they each play distinct roles in a manager's decisions to distribute value to specific stakeholder groups.

**Hypothesis 1.** Managers consider each stakeholder's power *and* strategic importance when deciding how to distribute value.

#### *Relative influence of power and strategic importance on value distribution*

Although the theory above suggests the firm is positively rewarded for allocating value to powerful and strategically important stakeholders, therefore increasing its total value, this process can come at great cost. Stakeholder theory proposes generous treatment towards a broad group of stakeholders but does not set limits regarding such behavior (Harrison and Bosse, 2013). Without such limits on favorable treatment of stakeholders, stakeholder theory can be misread to promote a firm's "giving away the store," wherein the firm distributes so much value to satisfy various stakeholders' expectations that it sacrifices profitability. An example of this situation is when there is not enough material value left for all of the primary stakeholders to realize their stake in the firm (Harrison and Bosse, 2013). In this sense, it is important to evaluate the ideal value distribution to each stakeholder.

This challenge raises a legitimate research question about how managers weigh varying levels of stakeholder power and strategic importance when deciding how to distribute value back to their stakeholder networks. The  $2 \times 2$  stakeholder strategy framework that combines power and strategic importance as the drivers for value distribution decisions can be viewed from two perspectives: a normative one and a descriptive one (Harrison and Bosse, 2013). The tensions between these two perspectives provide a foundation for our second hypothesis.

The normative perspective is a proposition about how managers should prioritize stakeholders in order to create the most value for the firm and its network of stakeholders overall. From this perspective, stakeholders with high power and high strategic importance are likely to be already receiving the minimum value they need to receive. While the power of these stakeholders may result in over-distribution of value, an over-distribution would be less likely to hurt the firm since these stakeholders are strategically important to generating subsequent value. In the opposite extreme, stakeholders with low power and low strategic importance lack the power to extract additional value from the firm. Their lack of strategic importance means that they contribute less to value creation. This situation contrasts with the situation in which the stakeholders are powerful but not strategically important. For these stakeholders, a careful balance is required. As they are not important for competitiveness, the firm will not get much return for an additional amount of value distributed. However, they should not be underestimated or, worse, ignored, due to their ability to hurt the firm. Finally, stakeholders with low power and high strategic importance are ideally recognized based on their importance to the firm's competitiveness and value creation. However, their lack of power relative to the firm should not be mistaken as a sign that they should not be distributed sufficient value.

In theories of value creation and distribution based on power, the gains of one stakeholder ordinarily imply losses to another stakeholder. On the other hand, when the theory accounts for justice and reciprocity, there can be win-win relationships (Garcia-Castro and Aguilera, 2015) wherein the value distributed to one stakeholder group may *increase* the utility of another one. This reasoning emphasizes the upside value creation potential of the stakeholder network rather than the downside risks of value appropriation by powerful stakeholders. Tantalo and Priem (2016) label this phenomenon stakeholder synergy. A synergistic approach to value distribution increases the size of the value "pie" available for important stakeholders, increasing their willingness to stay and contribute to the firm's value creation system because they understand the complementarity of their contributions to the firm (Tantalo and Priem, 2016). These arguments change the focus from value distribution decisions that emphasize bargaining power criteria to decisions that place more weight on stakeholders' ability to contribute to total value creation.

We test our normative argument that the strategic importance dimension can have a stronger influence on the decision to distribute value to a stakeholder than the stakeholder's power. The null hypothesis, that value distribution decisions are not influenced more greatly by strategic importance than by the stakeholder's power, is a viable possibility. Moreover, a descriptive perspective of this  $2 \times 2$  framework, aligned with other strategic management theories discussed in the introduction, suggests managers



emphasize the stakeholder's power over its strategic importance when making value distribution decisions.

**Hypothesis 2.** A stakeholder's strategic importance to the firm has a greater influence than its power on the value it receives from the firm.

## Methods

### Study setting

Stakeholder theory has largely been developed and tested in industrialized countries and is arguably biased in subtle ways towards firm behavior in those countries. For this reason, studies of firm behavior in less developed countries should deepen our generalized understanding of how firms manage for stakeholders in an effort to improve overall firm performance.

This study examines stakeholder theory in the Brazilian context. Brazil is an ideal setting for examining our research question because it is the world's fifth largest country, the world's eighth largest economy (World Bank, 2018), and is widely regarded as one of the leading developing countries. The period covered by the study saw several visible indicators of strategic development relevant to our study setting. For example, the number of professionals involved in Brazil's creative and advanced technology economy increased 90 percent between 2004 and 2013 (Ruediger et al., 2015). Also, the Innovation Law (2004), reinforced by the Legal Innovation Mark (2016), created Innovation Technological Centers (NITs) inside the Scientific and Technological Institutions (ICTs). During this period, the institutional development of the NITs occurred in collaboration with universities based on cultural, normative and regulatory needs (Machado et al., 2017). Given Brazil's recent history and development progress, it represents a conservative setting for our analyses because powerful stakeholders often appropriate the most value from firms in less developed countries.

Designing this study required data about value distribution to different stakeholders in a setting where the firms are clearly aspiring to create substantially more value overall. Firms going through an initial public offering (IPO) fit this description, as the IPO is ordinarily expected to be a turning point in the growth of a firm. Our study leverages publicly available data about every firm that issued an IPO in Brazil between 2003 and 2017. Foreign investors are traditionally the largest buyers of Brazilian IPOs, and they have a powerful influence on the institutions that govern the stock exchange. For example, Brazil's stock exchange has tightened corporate governance rules that put more responsibility on corporate leaders, such as requiring audit committees formed by boards of directors and calling for compliance functions to measure and report the firm's adherence to standards. After the foundation of the Brazilian Institute of Corporate Governance (IBGC) in 1999, the country and its stock exchange have enjoyed higher ratings on the Brazilian Corporate Governance Index (BCGI) and have witnessed an increase of IPOs of Brazilian firms (Black et al., 2014).

The IPO process is especially suitable for this study because (a) it is recognized as a process that typically precedes a stage of value creation and firm growth and (b) it makes the firm more visible to all its stakeholders, through posting required reports, engaging more with public media, and coverage by the domestic and international financial communities. This expanded prominence typically results in stronger stakeholder relationships as the firm becomes more accountable in a variety of ways.

In the time period covered by this study, Brazil benefited from the institutions that will enable it to continue its development processes, and these institutions have significantly improved their effectiveness. Brazil has a central bank ("BCB"), a securities and exchange commission ("CVM"), and an anti-trust commission that regulates and monitors unfair business practices ("CADE"). Following earlier corruption scandals that were highly publicized, positive institutional changes related to development and social justice have also helped to further open the Brazilian economy, advance trade, and liberalize investment. The country has demonstrated strong internal growth potential as its legal system has introduced new anti-corruption laws that make company directors, managers, and officers liable for corruption or bribery. The country also has civil society organizations like trade unions, NGOs, and think tanks that support various stakeholder interests and claims.

### Sample

The study population is comprised of public firms listing for the first time on the Brazilian Stock Exchange. From 2003 to 2017, a total of 160 firms filed for IPOs. Eight of those firms were excluded from our study because their prospectuses did not present all the sections required for data collection (Appendix A. Supplementary Data 1 – Company List). For each of the remaining 152 firms included in our sample, we analyzed five stakeholder groups (investors/shareholders, community, customers, employees and suppliers) resulting in 760 observations. These firms represent a wide range of industries and vary in their sizes. The diversity of this sample strengthens the generalizability of this study. Table 2 shows the number of prospectuses filed in each year, as well as the number of observations. The largest number of prospectuses was registered in 2007 when there was a peak of IPOs in the Brazilian stock exchange.

We grouped the sample of firms into five industry sectors so that industry could be used as a control variable in our tests. Those five sectors include Banks, Commerce, Manufacturing, Services and Utilities. Table 3 provides a descriptive count of firms in each industry sector. The three industries with the most firms are Residential Building Construction, Banks, and Real Estate. However, these industries together make up only 31% of the sample. Taken together, Tables 2 and 3 show the sample is diversified across years and industries. Although the prospectuses were published in different years and by firms in different industries, the data is standardized because all firms in this time period followed the same IPO process and regulatory guidelines.

**Table 2**  
Companies per year.

Year	Firms	Observations
2003	1	5
2004	7	35
2005	8	40
2006	23	115
2007	61	305
2008	2	10
2009	7	35
2010	9	45
2011	11	55
2012	3	15
2013	7	35
2014	1	5
2015	1	5
2016	1	5
2017	10	50
<b>Total</b>	<b>152</b>	<b>760</b>

**Table 3**  
Companies per industry.

Industry type	N
Commerce	32
Pharmaceutical and Other Products	5
Food Retailers	4
Apparel, Fabric and Footwear	3
Diversified Products	2
Electronics And Household Appliance	2
Transportation Equipment	2
Others commercial activities	14
<b>Manufacturing</b>	<b>41</b>
Residential Construction	21
Exploration and/or Refining	3
Meat, Poultry and Others	3
Food industry	2
Sugar – Ethanol	2
Others industrial activities	10
<b>Services</b>	<b>56</b>
Real Estate	10
Diversified Financial Services	7
Education Services	5
Services and Programs	5
Diversified Services	3
Insurance	3
Rental Cars	3
Loyalty Programs	2
Pharmaceutical and Other Products	2
Travel and Tourism	2
Trucking	2
Others activities	12
<b>Utilities</b>	<b>11</b>
Electric Utilities	8
Gas and Biofuels	1
Road Concessions	1
Water Utilities	1
<b>Banks</b>	<b>12</b>
<b>Total</b>	<b>152</b>

### Data source

All of the dependent and independent variables used in this study were collected from the IPO prospectuses (Appendix A. Supplementary Data 2 – IPO Prospectuses). The prospectus is an important source of information about a firm's strategy, not only in developed economies, but worldwide. According to Payne et al. (2013), particularly for emerging economies, the rhetoric used in prospectuses is even more important than for U.S. stock offerings due to limitations in information availability and quality. The prospectus is recognized by the investment community as the most detailed and precise source information about the issuing firm (Bhabra and Pettway, 2003) and considered as the most important sources of reliable information to investors (Ding, 2016).

The IPO prospectus is often employed in the strategic management literature as a source for firm data. Due to the wealth of information contained in these documents, IPO prospectuses have been used to analyze strategic issues (see Mousa et al., 2016) and as a data source to perform content analysis (see Jegadeesh and Wu, 2013; Garanina and Dumay, 2017). Pollock et al. (2008) used the number of risk factors listed in the IPO prospectus in a measure of firm quality. The prospectus is an ideal source of information for a study of value creation and distribution because it is the firm's legal responsibility to supply thorough and trustworthy information about these topics to potential investors. Besides providing valuable information about the firm's strategy, the IPO prospectus also indicates the positioning of the firm in relation to its stakeholders.

To complete an IPO, the company must meet certain criteria defined by the Brazilian Securities Commission (Comissão de Valores Mobiliários or "CVM") according to its Instruction 400 (CVM, 2003). CVM is the regulator of the Brazilian stock market, which is an agency in Brazil equivalent to the US Securities Exchange Commission (SEC). All the IPO prospectuses must be filed at B3 (Brasil, Bolsa, Balcão) Stock Exchange, where the data for this research was collected. Firms must follow CVM's instructions to prepare their prospectuses. This "reduces the likelihood of firms greatly embellishing their performance and mak[es] the content analysis method valid" (Wilbon, 2003, p. 235). In the Brazilian context, the prospectus is the main source of information for IPOs due to a lack of news media coverage of firms before their IPO (Gioielli et al., 2013).

### Data collection

We collected our data through content analyses of the IPO prospectuses. Content analysis is any research method used to make valid inference from text (Bardin, 1977; Weber, 1990). This method assumes that language reflects how the writers understand their context and reflects their cognitive processes (Holsti, 1968). Content analysis utilizing dictionary-based methods and conducted by taking the frequency counts of words is particularly useful when employing qualitative data to answer more quantitatively oriented research questions (Banks et al., 2018). In this study, the IPO prospectus provides the qualitative data to answer (test) the quantitative questions (H1 and H2). As we explain in the next section, content analysis of an IPO prospectus 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 commonly employed method in strategic management research, reviews of this technique support its ability to measure strategy-related issues (cf. Duriau et al., 2007; Morris, 1994). Following Green and Pelozo (2015), who used content analysis to measure CSR practices for stakeholder relationships (see also Deephouse and Carter, 2005; Desai, 2014; McClelland et al., 2010), we used a quantitative content analysis based on the relative frequency of words (Weber, 1990). More precisely, we used 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."

### Dependent variable

Value for a stakeholder is understood as a combination of tangible and intangible outputs that the stakeholder prefers to receive from the firm (Harrison et al., 2010). The content analysis to measure stakeholder value considered both the tangible and intangible dimensions described in Table 1 and followed four steps. In the first step, the IPO prospectus structure was mapped out. The prospectus is a document that might be longer than 500 pages with several sections, some focusing only on legal issues or only referring to participating banks, etc. Sections with legal information or containing offer details, among others, are not relevant for stakeholder analysis. If considered unthoughtfully, these sections can cause bias because of their legal focus on shareholders and their rights. In order to reduce such bias, we have selected for analysis only those sections that include data on the firm's strategy regarding stakeholders' interests. The selected sections were: (1) Summary - a firm's summary and its strategy, located at the beginning of the prospectus; (2) Analysis and Discussion of Financial and Operational Results; (3) Industry Analysis - data on the firm's operating industry; and (4) Operations - detailed data on the firm's operations. Examples of sections that were not considered include the Offer Summary and Description of Share Capital.

In the second step, we aimed to define analogous words that could identify each stakeholder in the Portuguese language. These words refer to primary stakeholders: employees, investors and shareholders, community, customers, and suppliers. Such words represent the first set of words that needed to be measured.

The third step was to define the set of words that can be associated with tangible and intangible values for each stakeholder. "Value" can mean many things to different stakeholders, as explained above. To capture all of the possible indicators of value in the IPO prospectus for each stakeholder group, we looked for both tangible and intangible aspects of stakeholders' utility functions based on the extant literature on stakeholder value. A thesaurus of the Portuguese language (Azevedo, 2010) was consulted in order to construct a rich list of words denoting "value" in each stakeholder category. These definitions were based on the academic literature as presented in Table 1. Table 4 presents the lists of words used to measure the value distributed to each stakeholder group (for the



**Table 4**  
Words employed to measure value to stakeholders.

Stk	Kind of value	Utility function components found in the literature	Words used
Employees	Tangible	Salary, Benefits, Remuneration, Employment Security, Conditions and Training, Physical health (Tantalo and Priem, 2016: 322; Brown and Forster, 2013; Cragg and Greenbaum, 2002; Clarke, 1998).	allowance, benefit, billing, bonus, commission, compensation, contributes, costing, credit, dividend, earning, fee, financing, gain, gift, gratification, honorary, income, insurance, interest, orderly, pay, paid holidays, pension, percentage, prize, portion, profit, provision, quota, receiving, remuneration, revenue, retribution, return, reward, salary, share, satisfaction, subsidy, vacation, wage, arranges, care, cleanliness, comfort, health, hygiene, installation, neatness, perfection, sanitation, sanity, safety, welfare.
	Intangible	Perceived Fairness of the Working Environment, Job Characteristics and Skill Variety and Pleasant Working Environment (Tantalo and Priem, 2016: 322; Brown and Forster, 2013; Clarke, 1998).	affiliation, association, communication, disclosure, engagement, fidelity, honesty, information, integrity, link, loyalty, membership, merger, note, notification, participation, proposal, recommendation, recognition, reference, sincerity, statement, trust, union, warning, advantage, ascension, apprentice, awareness, career, capacity, competence, development, education, effect, encouragement, impulse, improvement, incentive, increase, instruction, know-how, promotion, progress, training.
Investors	Tangible	Expected Return and Dividends (Tantalo and Priem, 2016: 322; Brown and Forster, 2013; Clarke, 1998).	income, revenue, gains, profit, interest, return, proceeds, invoice, price, amount, sum, value, compensation, requirement, bonus, payment, award, prize, rewards, remuneration, compensation.
	Intangible	Information, Transparency and Corporate Social Responsibility (Harrison and Wicks, 2013; Tantalo and Priem, 2016: 322).	information, science, knowledge, data, report, news, notice, notification, communication, memo, message, note, opinion, clarification, explanation, clarity, truth, truthfulness, kindness and compliance.
Community	Tangible	Perceived Impact on Community (Harrison and Wicks, 2013); Social programs (Reynolds et al., 2006).	planning, plan, project, wellness, convenience, comfort, contentment, dispose, happiness, satisfaction, security, tranquility, capital, money, resource, rest, protection, interest, profit, benefit, utility, value, advantage.
	Intangible	Number and Types of Jobs Created, Taxes, Support Infrastructure Required, Local Clusters (Tantalo and Priem, 2016: 322).	comfort, ease, composure, decency, decorum, dignity, distinction, respect, infrastructure, service, communitarian, common, social, employment, work, creation and environment.
Customers	Tangible	Products with Quality and Functionality, Product's Price, Perceived Quality, Service, Safety, Value for Money, Accessibility - time required to purchase the product and time required to master using the new product (Harrison and Wicks, 2013; Tantalo and Priem, 2016: 322; Clarke, 1998).	product, quality, applicability, functionality, purpose, usefulness, use, utility, award, compensation, cost, demand, gratification, worth, payment, price, remuneration, reward, retribution, value, service, duration, accessibility, period, term, time, interaction, reiterates.
	Intangible	Business Reputation, Respect, Environmental Corporate Responsibility and "Ecofriendly" Product (Harrison and Wicks, 2013; Tantalo and Priem, 2016: 322; Clarke, 1998).	recidivism, repetition, accepted, attention, consideration, courtesy, customer, deference, fulfillment, kindness, respect.
Suppliers	Tangible	Nature of Payments (i.e., Size, Speed), Ordering Procedure and Size, Price Received (Deutsch and Valente, 2013; Tantalo and Priem, 2016: 322).	dimension, magnitude, quantity, size, volume, price
	Intangible	Stable and Enduring Relationship and Long-term Relationships (Harrison and Wicks, 2013; Clarke, 1998).	consolidated, durable, enduring, interaction, long-lasting, perennial, permanent, reiterates, recurrence, recidivism, repetition, accelerates, agility, brevity, emergency, fugacity, hurry, preparedness, promptness, speed, acquisition, order, purchase, request, process.

respective words in Portuguese see [Appendix A Supplementary Data 3 – Words to Measure Value](#)). In this step we prepare the IPO prospectus to be coded by identifying and rating recording units (Weber, 1990). The recording unit was defined as the value for a stakeholder in an IPO prospectus and was measured by the association of a specific stakeholder with its respective set of words regarding value in a single paragraph. This method has been used in other strategy studies to measure, for example, public legitimacy (Deephouse and Carter, 2005) and bank legitimacy (Deephouse, 1996).

Finally, in the fourth and last step, the NVivo12 software was employed to find associations between those words that identify stakeholders and those words associated with value distributed to stakeholders (see [Appendix A. Supplementary Data 4 – NVivo Output](#)). Each word associated with the value for a specific stakeholder group was found in the same paragraph as a word that identified that stakeholder. The frequency of words was weighted against the number of pages of each prospectus (see [Appendix A. Supplementary Data 5 – Variables Scores](#)). The value variable was weighted on a scale from 0 to 1, considering the maximum score of each variable (see [Appendix A. Supplementary Data 5 – Variables Scores – weighted score columns](#)). This method generated a variable that includes tangible and intangible stakeholder value.

### Independent variables

**Power.** In order to evaluate and measure stakeholder power we chose to analyze the section “Firm's and Industry's Risk Factors.” In this section, the firm identifies the potential threats and points out those stakeholders that may hurt the firm's performance. This choice is in line with [Harrison and Bosse \(2013\)](#) definition that power is the ability or propensity of a stakeholder to hurt the firm.

We defined the recording unit of stakeholder “power” as a citation of a particular stakeholder in the “Firm's and Industry's Risk Factors” section. We used the NVivo12 software to count the frequency with which each stakeholder was cited in the chosen prospectus sections (see [Appendix A. Supplementary Data 4 – NVivo Output](#)). Finally, in order to calculate the variable of power, we divided the resulting frequencies by the number of pages of each section in the prospectuses ([Appendix A. Supplementary Data 5 – Variables Scores](#)), balancing the laconism and prolixity present in their text style. In order to be used in the same statistical model with the other variables, this variable was weighted on a scale from 0 to 1 (see [Appendix A. Supplementary Data 5 – Variables Scores – weighted score columns](#)).

**Strategic importance.** To evaluate and measure the strategic importance of the stakeholder we selected the section “Strengths and Competitive Advantages.” We chose this section because it contains information regarding the firm's competitive advantage and the relationship with stakeholders that may provide competitive advantage. Thus, this section reflects strategic importance defined by [Harrison and Bosse \(2013\)](#) as the stakeholder's ability to contribute to the firm's competitiveness.

We defined the recording unit of stakeholder “strategic importance” as a citation in the “Strengths and Competitive Advantages” section. We used the NVivo12 software to count the frequency with which each stakeholder was cited in the chosen prospectus sections (see [Appendix A. Supplementary Data 4 – NVivo Output](#)). In order to calculate the variable of strategic importance, we divided the resulting frequencies by the number of pages of each section in the prospectuses ([Appendix A. Supplementary Data 5 – Variables Scores](#)), balancing the laconism and prolixity present in their text style. Consistent with the other variables, this variable was weighted on a scale from 0 to 1 (see [Appendix A. Supplementary Data 5 – Variables Scores – weighted score columns](#)).

### Validation of dependent and independent variables

Validation efforts for content analysis can be of two types: internal, also called reliability, and external ([Krippendorff, 1980](#)). We performed both types. Internal validity in content analysis relies on objective criteria of measurement ([Krippendorff, 1980](#)). Our method follows this recommendation because all coded and counted words employed for the dependent and independent variables, respectively, value, power and strategic importance, were explicitly specified in [Tables 1 and 4](#). Also, all the steps needed to generate those three variables were defined in the methods section. Moreover, we used NVivo12 software to count and find word associations. These procedures avoid the main threats to reliability which are the fatigue and interpretation biases of the researcher ([Potter and Levine-Donnerstein, 1999](#)) and have guided other researchers in strategic management who used content analysis ([Ben-Menahem et al., 2013](#)). These internal validation methods allow the comparison of data between companies and across time, contributing to stability, reproducibility, and accuracy ([Krippendorff, 1980](#); [Potter and Levine-Donnerstein, 1999](#)).

External validity is comprised of three fundamental elements: data oriented validity, to assess how well a method of analysis accounts for the information inherent in available data, pragmatic validity, to assess how well a method “works” under a variety of circumstances, and process validity, also called construct validity ([Krippendorff, 1980](#)). We performed the tests recommended by [Krippendorff \(1980\)](#) for both data oriented validity (semantic analysis) and pragmatic validity (correlation analysis), and our method followed the directions for ensuring process validity (construct validity).

Semantic validity is “the degree to which a content analysis recognizes and correctly represents the symbolic qualities, meanings and conceptualizations in the system of interest” ([Krippendorff, 1980, p.73](#)). We performed a semantic analysis of fourteen prospectuses (9.21 percent of our sample) from different years and industries, classifying the variables of value, power and strategic importance. We first did this analysis seeking to interpret which stakeholders received the highest and the lowest value from firms. We found no instances where a mention of value meant less value for the stakeholder, which is to be expected since companies are not interested in voluntarily disclosing information detrimental to their stakeholders. We also performed a semantic analysis of these prospectuses seeking to interpret which stakeholders were reported to have the highest and the lowest levels of power and strategic importance. The semantic analysis was performed to obtain a standard reference of results for comparison in the pragmatic validation step, in this case by a correlation test.

For the pragmatic validation step we performed a correlation validity test to examine the degree to which findings obtained by one method correlate with findings obtained by another and, therefore, justify their substitutability ([Brutus and Duniewicz, 2012](#); [Krippendorff, 1980](#)). We correlate the results obtained in the semantic validation with the results obtained in the quantitative content analysis. The correlation test result was  $R = 0.75$  between semantic analysis and content analysis for the “value” variable,  $R = 0.82$  for the “strategic importance” variable, and  $R = 0.86$  for the “power” variable ([Appendix A. Supplementary Data 6 – Validation Test](#)). These very consistent results show our content analysis method has convergent validity.

Concerning construct validity, the process oriented validity in this study regards the accordance of the concepts of value, power and strategic importance with the theory. In this study content analysis is the method employed for data collection, thus, this construct validity is not related to the relationships of value to power or strategic importance as statistically tested later through regression analysis. Construct validity is the degree to which the inferences of a content analysis must be accepted as evidence because of the structural correspondence of the process and categories of analysis with accepted theories or models [Krippendorff \(1980\)](#). In this study, this correspondence refers to the connection between the words employed in the content analysis to the relevant literature in stakeholder theory. This correspondence is explained in the previous sections Dependent Variable and Independent

Variables and it is synthesized in Tables 1 and 4

*Control variables*

We controlled for three variables that might affect value distribution to stakeholders. First, we included a dummy variable for industry (Banks = A; Commerce = B; Manufacturing = C; Services = D and Utilities = E). Prior works use dummy variables to control for industry in stakeholder management studies (e.g., Choi and Wang, 2009; Kumar et al., 2016) and in studies of IPO phenomena (McLeod et al., 2018). Industry might affect value distribution because each industry has unique characteristics that managers may take into consideration when directing resources to stakeholders (Baird et al., 2012). Likewise, different industry characteristics may influence the IPO process (McLeod et al., 2018; Ritter, 1991). For example, services might distribute more value to customers while Manufacturing might focus more on suppliers.

Second, we controlled for year by including dummies variables (from 2003 to 2017). The year of IPO is an important control variable because market conditions may change each year (Ritter, 1991; Jia and Zhang, 2014; McLeod et al., 2018), and each company may adapt its stakeholder strategy according to the different market conditions. This control captures any variance that is attributable to the broader economic, business, and IPO environments in each specific year.

Third, we controlled for firm size by calculating the natural logarithm of total assets, similar to prior studies of firms at IPO (Arthurs et al., 2008; Jia and Zhang, 2014). The natural logarithm of total assets is also a proxy employed in studies about stakeholder and social performance (Wang and Choi, 2013; Cheng et al., 2014). Size might affect value distribution because large firms may be able to distribute a larger amount of value to stakeholders.

*Data analysis*

We use ordinary least squares (OLS) regression to test our hypotheses. This method requires some assumptions including homoscedasticity of regression residuals and absence of multicollinearity. After a Breusch-Pagan test indicated the presence of heteroscedasticity in our data, we addressed this issue by estimating the model with robust standard errors for heteroscedasticity (Wooldridge, 2010). We test the presence of multicollinearity through the variance inflation factor (VIF) test and found a mean score less than 10, indicating this is not a problem (Hair et al., 2006) (Appendix A. Supplementary Data 8 – STATA Dofile). In order to test our hypotheses, we used three equations. Equation (1) uses strategic importance as the only independent variable. Equation (2) uses power as the only independent variable. These equations aim to analyze the impact of both independent variables separately. Equation (3) tests strategic importance and power in the same model:

$$Value_t = \beta_0 + \beta_1 StrategicImp_t + size_t + sector_t + year + \varepsilon \tag{1}$$

$$Value_t = \beta_0 + \beta_2 Power_t + size_t + sector_t + year + \varepsilon \tag{2}$$

$$Value_t = \beta_0 + \beta_1 StrategicImp_t + \beta_2 Power_t + size_t + sector_t + year + \varepsilon \tag{3}$$

Where:

- Value* = value distributed to stakeholder
- StrategicImp* = stakeholder's strategic importance
- Power* = stakeholder's power
- $\beta_0$  = linear coefficient of the model
- $\beta_i$  = slope of the linear model
- size* = natural logarithm of total assets
- sector* = dummy variables for industry
- year* = dummy variables for year
- $\varepsilon$  = error.

*Robustness tests*

We conducted four tests to check the robustness of our results: analysis of outliers, a multilevel model, a moderation model, and five models testing each stakeholder separately. Influential outliers can affect OLS regression. To test for this, we did Dfits (Aguinis et al., 2013) and Cook D analyses (Hair et al., 2006) and reran the OLS model without observations that had Dfits and Cooks greater than 1. The results are the same as the model that included these outliers.

We used a multilevel mixed-effects model to test the robustness of our results because stakeholder's power, strategic importance and value are all nested within a firm and are therefore not completely independent of each other (Rabe-Hesketh and Skrondal, 2008). We specify a two-level model with random intercepts at the stakeholder and the firm level. The results from this model are the same as the original OLS estimates.

We also tested an alternative explanation by considering the possibility that power and strategic importance could have a moderation effect on value. In order to avoid a zero-inflated model (Lambert, 1992), we removed from the sample any observation for

**Table 5**  
Correlations and descriptive statistics.

Correlations	Value	Strategic Imp.	Power	Size
Value	1.00			
Strategic importance	0.4566*	1.00		
Power	0.3686*	0.3273*	1.00	
Size	0.02	0.00	-0.0561*	1.00
Descriptive Statistics	Value	Strategic Imp.	Power	Size
Mean	0.18	0.13	0.14	13.89
Std. Dev.	0.17	0.19	0.20	1.24
Minimum	0.00	0.00	0.00	9.39
Maximum	1.00	1.00	1.00	19.10
Obs	760	760	760	760

which the product of power and strategic importance resulted in zero. The resulting model includes 277 observations and supports our results because the moderating variable was not significant.

Our interest was 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. In other words, we do not assume value distribution decisions to different stakeholders are isolated decisions. Nevertheless, one may ask if the theoretical relationships we are examining may vary for the different stakeholder groups. To explore this possibility, we analyzed the isolated relationships for each stakeholder group by running five regression models that considered the stakeholders individually. Each model was estimated through an OLS regression where power and strategic importance of each stakeholder were the independent variables and value was the dependent variable. Results are in line with our main model since for all stakeholders (investors, customers, employees and suppliers) except community, the strategic importance presented stronger effects on value distribution than power. The stakeholder group-specific results are reported in the Hypothesis tests section.

## Results

Table 5 presents correlations and descriptive statistics for the variables we use to test our hypotheses. Both independent variables present a positive and significant correlation with value. Strategic importance presents a coefficient of 0.4566. This score is higher than the 0.3686 presented by power. Size does not present a significant correlation with value.

Table 6 presents the descriptive statistics for each stakeholder groups' measures of value, power, and strategic importance. These statistics provide an overview of how the different stakeholders are positioned in these variables.

According to Table 6, customers are the stakeholders with higher average level of value (0.23), followed by shareholders (0.22) and employees (0.19). The suppliers (0.14) and community (0.10) are the stakeholders that receive less value by comparison. The standard deviations of the value variable among the stakeholders are quite similar, ranging from 0.15 for customers and employees to 0.17 for the other stakeholders. Regarding the variable of strategic importance, customers are the most strategically important (0.20), followed by shareholders (0.17) and employees (0.14). Suppliers (0.09) and community (0.04) are the stakeholders with less strategic importance. The standard deviations of the strategic importance variable are slightly higher than for value, ranging from 0.16 for customers and community up to 0.20 for shareholders and employees. Concerning power the order of stakeholders listed from most to

**Table 6**  
Descriptive statistics by stakeholder.

	Stakeholder	Obs	Mean	Std. Dev.	Min	Max
Value	Shareholder	152	0.22	0.17	0.00	1.00
	Customer	152	0.23	0.15	0.00	1.00
	Community	152	0.10	0.17	0.00	1.00
	Employee	152	0.19	0.15	0.00	1.00
	Supplier	152	0.14	0.17	0.00	1.00
Power	Shareholder	152	0.15	0.18	0.00	1.00
	Customer	152	0.25	0.20	0.00	1.00
	Community	152	0.03	0.13	0.00	1.00
	Employee	152	0.14	0.17	0.00	1.00
	Supplier	152	0.13	0.24	0.00	1.00
Strategic Importance	Shareholder	152	0.17	0.20	0.00	1.00
	Customer	152	0.20	0.16	0.00	1.00
	Community	152	0.04	0.16	0.00	1.00
	Employee	152	0.14	0.20	0.00	1.00
	Supplier	152	0.09	0.17	0.00	1.00

**Table 7**  
Regression models.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Strategic Imp.		0.418*** (11.52)		0.343*** (8.85)	0.320*** (13)	0.344*** (11.77)	0.242** (3.11)
Power			0.327*** (9.58)	0.223*** (6.15)	0.205*** (8.67)	0.222*** (8)	0.253*** (3.37)
Moderator							-0.0996 (-0.59)
Size	0.00109 (0.18)	0.00314 (0.61)	0.00448 (0.86)	0.00508 (1.04)	0.00890* (2.12)	0.00508 (0.94)	0.008 (0.89)
Year_2004	-0.0555 (-0.68)	-0.103 (-1.07)	-0.0595 (-0.58)	-0.0971 (-0.96)	-0.0163 (-0.26)	-0.0972 (-1.33)	-0.195 (-1.65)
Year_2005	-0.0857 (-1.05)	-0.119 (-1.28)	-0.0987 (-0.99)	-0.122 (-1.24)	-0.0209 (-0.34)	-0.122 (-1.67)	-0.189 (-1.63)
Year_2006	-0.0639 (-0.82)	-0.113 (-1.23)	-0.0853 (-0.86)	-0.119 (-1.22)	-0.0156 (-0.26)	-0.119 (-1.69)	-0.181 (-1.62)
Year_2007	-0.0898 (-1.17)	-0.132 (-1.44)	-0.1 (-1.01)	-0.131 (-1.36)	-0.0307 (-0.52)	-0.131 (-1.90)	-0.221* (-2.01)
Year_2008	-0.116 (-1.23)	-0.153 (-1.54)	-0.109 (-1.02)	-0.141 (-1.35)	-0.0325 (-0.46)	-0.141 (-1.66)	-0.278* (-2.06)
Year_2009	-0.071 (-0.87)	-0.121 (-1.31)	-0.0907 (-0.91)	-0.125 (-1.28)	-0.0219 (-0.35)	-0.126 (-1.72)	-0.211 (-1.82)
Year_2010	-0.019 (-0.24)	-0.0638 (-0.66)	-0.0285 (-0.27)	-0.0622 (-0.61)	-0.00764 (-0.12)	-0.0623 (-0.86)	-0.0159 (-0.14)
Year_2011	-0.0496 (-0.62)	-0.0768 (-0.80)	-0.0367 (-0.36)	-0.0631 (-0.62)	0.0143 (0.23)	-0.0631 (-0.88)	-0.00202 (-0.02)
Year_2012	-0.00242 (-0.03)	-0.0222 (-0.21)	0.0139 (-0.12)	-0.00756 (-0.07)	0.0611 (0.9)	-0.00763 (-0.10)	0.0647 (-0.52)
Year_2013	-0.0801 (-0.98)	-0.105 (-1.09)	-0.0775 (-0.75)	-0.099 (-0.98)	0.00215 (0.03)	-0.0991 (-1.34)	-0.101 (-0.86)
Year_2014	-0.163 (-1.51)	-0.179 (-1.70)	-0.167 (-1.34)	-0.179 (-1.57)	-0.0796 (-1.00)	-0.179 (-1.84)	-0.106 (-0.57)
Year_2015	0.00439 (0.04)	-0.0699 (-0.55)	-0.0346 (-0.28)	-0.0831 (-0.70)	-0.0527 (-0.63)	-0.0833 (-0.86)	0 (.)
Year_2016	0.095 (0.88)	-0.0838 (-0.88)	0.0862 (0.72)	-0.0578 (-0.57)	0.0474 (0.59)	-0.0583 (-0.60)	-0.184 (-1.22)
Year_2017	-0.0058 (-0.07)	-0.069 (-0.72)	-0.0433 (-0.42)	-0.0832 (-0.83)	0.00416 (0.07)	-0.0833 (-1.15)	-0.111 (-0.98)
Commerce	0.0479 (1.63)	0.0535* (2.16)	0.042 (1.78)	0.0484* (2.17)	0.0568** (2.75)	0.0485 (1.83)	0.0198 (0.49)
Manufctng	0.00405 (0.15)	0.00767 (0.39)	-0.00292 (-0.16)	0.00227 (0.13)	0.00889 (0.46)	0.00229 (0.09)	-0.0595 (-1.57)
Service	-0.00238 (-0.09)	0.016 (0.79)	-0.00112 (-0.06)	0.0135 (0.76)	0.0243 (1.26)	0.0136 (0.55)	-0.0274 (-0.70)
Utilities	-0.0138 (-0.40)	-0.0121 (-0.45)	-0.00422 (-0.16)	-0.00591 (-0.25)	0.0131 (0.54)	-0.00591 (-0.19)	-0.0535 (-1.15)
Constant	0.218 (1.73)	0.169 (1.37)	0.138 (1.07)	0.123 (0.99)	-0.0377 (-0.41)	0.123 (1.09)	0.222 (1.14)
N	760	760	760	760	760	760	277
R <sup>2</sup>	0.0474**	0.252***	0.1861***	0.3096***	0.3606***		0.3156***
Wald chi2						339.54***	

t statistics in parentheses.

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

least is: customers (0.25), shareholders (0.15), employees (0.14), suppliers (0.13) and community (0.03). The standard deviations of the power variable are higher than for the other variables, ranging from 0.13 for community to 0.24 for suppliers.

Table 7 shows the results from the regressions. We used dummy variables to control the influence of year and sector. The base values are the year 2003 and the bank sector. In these models, we evaluate the influence of the power and strategic importance attributes on value distribution. Model 1 contains only control variables. None of the control variables showed significant impact on value in this model and the R-square was only 5%, indicating a poor fit of the model.

Model 2 and 3 present OLS regressions with independent variables separately. These models use robust errors for heteroscedasticity. Model 2 shows the influence of strategic importance on value. Results indicate a positive and significant impact on value at 1%. The strategic importance coefficient is 0.418 and the R-square of the model is 25%, which indicates a good fit with the data. Model 3 shows the results of power as the independent variable. While power in Model 3 also has a positive and significant impact on value at 1%, power's coefficient (0.327) is lower than that of strategic importance. Model 3 also presents a lower R-square, 18.61%.

Model 4 presents the OLS regression with robust errors in order to correct heteroscedasticity problems. Considering all variables, the mean VIF was 7.38. Dummy variables for year presented a high VIF, especially for the years 2006, 2007, 2011 and 2017. We also

analyzed the VIF without year dummies and the result was a mean VIF of 2.36. This result indicates that there is no problem with multicollinearity. In this model, strategic importance and power presented a positive and significant influence on value at 1%. However, strategic importance has a greater impact on value, with a beta coefficient equal to 0.343, compared to power that shows a coefficient equal to 0.223. The R-square of Model 4 is 30.96%, indicating a good fit of the model.

Model 5 employs an OLS estimator but without the presence of outliers. Results were similar to those of Model 4. Model 6 presents the multilevel regression and shows coefficients equal to those obtained in Model 4. Finally, Model 7 was estimated with a moderator variable for strategic importance and power. Results support Model 4 since the moderator variable is not significant at 5%.

The control variables captured variance in each model as follows. Size, measured by the mean of the log of total assets, was statistically significant only in Model 5. This reflects comparatively low variation in the size of firms in this population, as they were all measured at the time of IPO. Table 5 shows the standard deviation of the size control is only 1.24. The year control captures a difference between 2007 and 2008 compared with 2003 in Model 7. Finally, the sector control is statistically significant in Models 2, 4 and 5, where the commerce sector is significantly different from banks.

### Hypothesis tests

The findings support H1. Model 2 shows that strategic importance, as the lone independent variable, has a positive and significant effect on the value distribution decision. Model 3 shows that power alone also has a positive and significant coefficient. Finally, Model 4 shows that the stakeholder attributes of strategic importance and power, as independent variables in the same model, also both have positive and significant coefficients.

The findings also support H2. Models 2 and 3 taken together show that when examined alone, strategic importance has greater influence on value distribution (coefficient 0.418) than power (coefficient 0.327). Model 2 also presents higher R-square than Model 3, further reinforcing this evidence. Ultimately, Model 4, contemplating both strategic importance and power as independent variables in the same regression model, indicates that strategic importance (coefficient 0.343) has greater influence on value than power (coefficient 0.223) (see Appendix A for Supplementary Data 8 – STATA Dofile). None of our additional tests of possible other explanations point to a different interpretation.

Complementing the analysis of H2, as proposed in the Robustness test section, Table 8 presents the results of the regressions per stakeholder, separately.

As can be seen in Table 8, four of the five stakeholder groups present consistent results to those reported in Table 7. For the shareholder and employee stakeholder groups, strategic importance has a positive and significant relationship with value, but power is not statistically significant, indicating that power does not help explain how much value managers distribute to them. For customer and supplier stakeholder groups, power and strategic importance both have positive and significant relationships with value, and in both cases the beta coefficient for strategic importance is higher than power, indicating that strategic importance has higher influence than power in value distribution decisions. These results provide more granular support for H2. Last, the community stakeholder group presents a different result, with a positive and significant beta coefficient for power and an insignificant statistical result for strategic importance.

### Discussion

Value co-creation is a well discussed concept in the strategy literature (Franke et al., 2013; Khanagha et al., 2017) firstly introduced from the customer perspective (Prahalad and Ramaswamy, 2004) and then expanded to relationships with other stakeholders (Lusch and Webster, 2011; Dentoni et al., 2016; Markovic and Bagherzadeh, 2018). Stakeholder theory is similarly grounded in the recognition that stakeholders influence firm behavior. As a firm's managers decide how to respond to the perceived demands, threats, opportunities, and potential contributions of the individual stakeholders in their network, each of these decisions has an effect on aggregate value creation at the firm. The decisions and interactions that lead to value co-creation, including how managers distribute value throughout the stakeholder network and how that distribution, in turn, influences value creation, require closer examination (Barney and Harrison, 2018). This study sheds new light on this phenomenon and supports the perspective that value creation ultimately results from coordinating activities with primary stakeholders in ways that align the stakeholders' interests while generating synergy among the activities.

**Table 8**  
Regression Models for each stakeholder's group.

	Power		Strategic Importance	
	Beta	t statistics	Beta	t statistics
Shareholder	0.14	(1.96)	0.241***	(3.88)
Customer	0.270***	(4.40)	0.359***	(5.26)
Community	0.713***	(7.10)	0.17	(1.97)
Employee	0.13	(1.78)	0.238***	(4.17)
Supplier	0.184**	(3.30)	0.442***	(5.87)



### *The role of strategic importance*

The stakeholder strategy literature presents several frameworks for explaining and predicting stakeholder treatment (e.g. Freeman, 1984; Savage et al., 1991). Many of these stakeholder strategy frameworks tend to emphasize the stakeholder's power in manager's decision-making processes. In this sense, stakeholder theory is similar to other dominant theories of strategic management mentioned in the introduction. The strategic importance of specific stakeholders, however, has been either over-looked or comparatively under-weighted in explanations of stakeholder management and corporate governance phenomena. This study provides empirical evidence showing managers consider both stakeholder power and the stakeholder's strategic importance when deciding how to distribute value among their stakeholders.

This study further contributes new insights to this literature by proposing and testing the hypothesis that strategic importance is of higher relevance when allocating value to stakeholders than stakeholder power. The evidence we present shows, at least for firms going through the IPO process, managers are more likely to prioritize the interests of stakeholders who can best contribute to the firm's competitiveness and overall value creation than the interests of those powerful stakeholders with potential to hurt the firm in some way. Thus, it is a mistake to continue claiming that the stakeholder's power to hurt the firm takes priority in this decision setting. Perhaps one reason for this finding is that this study developed and used more nuanced measures of value that capture each stakeholder's preferred components of utility, rather than simply measuring dollar amounts distributed to a few selected stakeholders as reflected in accounting or financial market reports.

An expanded interpretation of this result is that stakeholders with strategic importance may be most likely to create value for other stakeholders, and managers distribute more value trying to trigger positive reciprocal behavior with these parties than they distribute trying to prevent powerful stakeholders from appropriating value for themselves. In such cases, when managers focus on strategic importance, they might simultaneously create value for different stakeholder groups in a synergic way (Tantalo and Priem, 2016). It is also plausible that focusing on power when allocating value might destroy value for other stakeholders, since in relationships based on power, the gains of one stakeholder mean losses to another one (Garcia-Castro and Aguilera, 2015). The theory developed above suggests this could stimulate a cycle of negative reciprocity among those stakeholders who incur the losses.

### *Value distribution before value creation*

Another feature of the stakeholder strategy literature that we identified in this paper is that it ordinarily frames value creation as a process that occurs before value distribution can occur. In making this point, we join the growing consensus on the importance of value creation, generally, while contributing empirical research that examines how managers actually do it in practice (Tantalo and Priem, 2016). This paper contributes to this larger conversation about value by extending the common perspective that value creation and distribution are interconnected. The twist here is that we reverse the interconnection. Our study supports a perspective that value distribution is a step that comes, at least in part, before value creation (see also Harrison and Bosse, 2013).

### *The concept of value in strategic management research*

The concept of firm-level performance in stakeholder theory is an aggregate of the total value created by the firm for its stakeholders (Coff, 1999; Freeman, 1984). However, many scholars have discussed the difficulty of measuring this concept of total firm value (e.g., Brandenburger and Stuart, 1996; Bowman and Ambrosini, 2000; Coff, 1999; McWilliams and Siegel, 2011; Priem, 2007; Priem et al., 2013; Ramirez, 1999). As a result, calls for better theory and better ways to measure stakeholder value are common (e.g., Freeman, 2017; Harrison and Wicks, 2013; Priem, 2007). Narrow measures of value creation, such as shareholder return, are widely recognized in this literature as problematic (Coff, 1999). Broader conceptualizations are better because they seek to account for the value created for multiple stakeholder groups. However, overly broad definitions of value, such as "anything that has the potential to be of worth to stakeholders" (Harrison and Wicks, 2013: 100), make measurement difficult. Another (broad) approach that is recently getting attention focuses on the (narrow) economic value accrued by all the stakeholders of the firm (Garcia-Castro and Aguilera, 2015; Lieberman et al., 2018).

Because of the multiplicity of stakeholders' utility function components, though, it is a challenge for scholars to articulate a parsimonious theory explaining how firms decide on the value distribution for the whole network of stakeholders. Each stakeholder has a utility function of preferences for different combinations of tangible and intangible results arising from the firm's actions. The process of value creation and distribution therefore needs to consider the utility function of each stakeholder group. The study reported here identifies and measures the tangible and intangible components in each stakeholder's utility function. This approach aligns with the theory that stakeholders are characterized by different multi-attribute utility functions composed more than just pecuniary utilities (Harrison et al., 2010; Tantalo and Priem, 2016).

### *Managerial implications*

This study provides evidence to support the following guidance to managers: distribute value to those stakeholders who can help you create more value overall, and get creative in the types of value you distribute to them. Pay attention to what they really want. Then give them noticeably more than what they seem to expect in that situation. The result, over time, will be positive reciprocity that helps you create even more value from that stakeholder's increased efforts or investments in your firm. Better value distribution decisions, based on the knowledge of the specific stakeholder's potential to enhance your firm's competitiveness, is likely an effective

way to improve firm performance (see also Harrison et al., 2010).

### Limitations

This study appreciates the nuances that distinguish various stakeholder's utility functions, but it applies one framework of stakeholder strategy to all the industry sectors represented in our sample. Other industries not adequately represented here may experience different patterns of managerial behavior in the stakeholder strategy process. The phenomenon under study is also broader than the sample of firms in our empirical tests. Firms that complete IPOs in Brazil do not represent all firms in all stages of development or in all countries. Finally, firms going through the IPO process are typically ready to grow. Our findings might not generalize to entrepreneurial firms in the earliest stages of firm formation.

### Future research

Insights from this study provide support for several interesting avenues for future research. For example, the theory and hypotheses we develop provide the foundation for a novel approach to understanding and measuring value that is neither too narrow nor overly broad, and more accurately captures the rich sets of outcomes of interest to a firm's various stakeholders. The value the firm creates needs to be examined as something that is distributed across different stakeholder groups rather than to just a few. Future research can further develop nuanced ways to measure value at the stakeholder level of analysis. These nuances might include, for instance, separate theoretical linkages among power, strategic importance, tangible sources of value, and intangible sources of value for specific stakeholder groups (e.g., customers, suppliers, etc.).

Our study found employees do not have the bargaining power to influence the value they receive, at least not from Brazilian firms at the time of IPO. Future research can explore the relationships between power, strategic importance and value for specific stakeholder groups separately and at different times in the lifecycle of firms. Another interesting avenue is to look for possible reasons to explain the different results we got for community, the only stakeholder group that does not appear to receive value based on its strategic importance.

This study also adds richness to future study designs by presenting a method of IPO prospectus content analysis that illuminates the constructs of value, power, and strategic importance. We show the IPO prospectus documents support the collection of novel measures like these for five distinct stakeholder groups. Tests of stakeholder theory's main propositions generally call for collecting data at the stakeholder level of analysis, and we argue IPO content analysis will support many more original studies like this one.

Building on our finding that strategic importance has a higher impact on value distribution than power, future research can seek further evidence in other study settings. For example, this study design can be standardized and replicated in a range of other developed and developing countries to expand and improve the cross-cultural fit of stakeholder theory. Further, does the same phenomenon occur at other stages of the firm lifecycle in other countries? Going beyond the typical  $2 \times 2$  framework, what other constructs from the stakeholder strategy literature might further explain manager's value distribution decisions?

Finally, future studies and methods may deepen the analysis of stakeholder value distribution by investigating more closely the mechanisms by which stakeholders exercise their power and strategic importance on the firm, as well as by investigating new dimensions associated with value distribution. The stakeholder strategy framework, for example, can be associated with corporate performance variables to investigate whether firms that distribute value according to the arguments explored here also present higher long-term financial performance.

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### Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.lrp.2019.05.003>.

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**João Maurício Gama Boaventura** holds Ph.D and Masters in Business Administration from the University of São Paulo. He is also a Professor at School of Economics, Business and Accounting (FEA) at the University of São Paulo (USP). He coordinates the research group Stakeholders and Networks indexed at CNPq. Currently he is the Chief Editor of RBGN - Revista Brasileira de Gestão de Negócios. His research interests are about stakeholder theory and business networks.

**Douglas A. Bosse** is a professor of strategic management at the University of Richmond's Robins School of Business. He received his PhD. from The Ohio State University's Fisher College of Business. His current research examines how firms manage key stakeholder relationships to improve firm-level performance.

**Keyssa Manuela Cunha de Mascena** is an Assistant Professor at University of Fortaleza (UNIFOR). She holds PhD in Business Administration from the School of Economics, Administration and Accounting (FEA), University of São Paulo (USP). Her research interests are about stakeholder theory and business for society.

**Greici Sarturi** is a full Professor at Federal University of Santa Maria (UFSM). She holds PhD in Business Administration from the School of Economics, Administration and Accounting (FEA), University of São Paulo (USP). Her research interests include strategic management, stakeholder theory and public management.