SUMMARY

Corruption is one of the greatest afflictions to affect the world. One form of corruption occurs when firms start to incur in corrupt non market strategies. Although we have seen a rise in interest in corruption topic among management scholars with special editions of journals focusing on the topic in the Academy of Management Review (2008), Organization Studies (2015), and the Journal of Management Inquiry (2017), strategy scholars have barely begun to debate the dark side of business strategy. How corrupt non-market strategies lead to erosion of government (i.e. Nigeria) and companies (i.e. Siemens and Unaoil) is a grand challenge that needs to be understood by scholars and practitioners. In this research we explain how corruption it is maintained and how corrupt non market strategies are employed to maintain a cartel.

In this study, we analyze data from one of the most publicized corruption investigations in the world: the "*Lava Jato*" (Car Wash). The investigation took place in Brazil and has led to hundreds of arrests and a large financial loss to shareholders. In particular, we look at corrupt nonmarket strategies adopted by management teams and firms in the energy sector in Brazil. One of the great challenges in studying corruption relates to the difficulty in collecting reliable data demonstrating illegal activities and corrupt practices. We use non-traditional data from publicly available and verifiable court decisions, plea agreements and parliamentary commission of inquiry and financial databases. Such rich data offers the chance to 'peer' inside a corrupt network and view some of the practices that are not often publicized. There are few empirical papers that delve into the topic generally rely on macro data from broad surveys (i.e. Birhanu, Gambardella, 2016) although corruption also happens at the individual and firm level.

We expand the literature of nonmarket strategy by analyzing other scenarios which have not been studied empirically, such as the antecedents of nonmarket strategy choice. We also develop framework to explain how this corrupt non market strategies were managed over time. We offer practitioners insights into the mechanisms that could in the future be used to develop better anticorruption measures by firms.

DATA AND METHOD

This study started with a broad empirical question regarding what strategies are used by organizations to sustain corruption. By asking a broad phenomenon based question, we have followed the tradition of empirical research in other domains such as organization theory (Eisenhardt, 1989). Serendipity impacted the research, with the *Lava Jato* operation starting and offering free access to all their data. Part of the challenge of studying corruption is due the straggle to collect reliable data collection such as company balance sheets and interviews. The companies don't budget such payments and "corrupt" respondents may lie since they would not want to provide evidence that could incriminate themselves.

Aware of such challenges during the data collection we incorporated additional data sources that seldom have used in strategy research. We started by analyzing all the sessions of Petrobras' parliamentary inquiry in 2014. Such sessions were recorded and transcribed, and the transcripts were made publicly available on the website of the Brazilian congress. We decided to use such rich kind of data since they are extremely detailed and have already been used in previous studies in management (Gephart, 1993). Public inquiries are used to make sense by Gephardt in disaster scenarios, and with such data one can seek in-depth accounts of events that occurred at the time with those directly involved (ibid, 1993). To understand them we use mostly qualitative data and methods of analysis since it can lead to insights that take account of the complexities of a phenomenon (Bettis et al., 2014) and the underlying mechanisms (Anteby, Lifshitz & Tushman, 2015). However, analyzing archival data from court proceeding also presents some challenges therefore the dataset was enriched with quantitative public financial sources. I compared testimonies, financial data, judicial condemnations, apprehended documents of the companies and general publicly available financial reports.

Insert Table 1 about here

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Data Analysis

After a preliminary analysis, we decided to narrow down to relevant and workable sets of data. This individual level data of the plea agreement offers an insight into top management team motives, rationalizations and cognitions and why they adopted such practices. After identifying the business executives investigated, we focused on their testimonies and coded them using nvivo software. These codes served as guiding principles to identify the most common corruption patterns and strategies described by executives. We then applied several methods (Stigliani & Ravasi, 2015) rather than following a research recipe book when analyzing this unconventional data set (Eisenhardt, Graebner, Sonenshein, 2016).

Combinations of different qualitative methodologies are gradually becoming more common in management research (Stigliani & Ravasi, 2015). The corpus of data, such as court data proceedings and legislative public commissions of inquiries, has traditionally been ignored by strategy scholars but has been used in other social sciences. The analysis also involved a detailed coding of data, visual mapping and temporal bracketing (Langley, 1999).

RESEARCH CONTEXT

Petrobras 2004- 2014

Petrobras is one of the most important companies in Brazil. In recent decades, it has undergone several changes, growth and crises and had to deal with an ever more complex national and international environment. Petrobras was founded in 1957 and until 1997, had exclusive rights to explore oil concessions in Brazil. Currently, the Brazilian federal government owns 28.67% of the capital stock and 50.26% of voting shares. Its board of directors is composed of 10 members, one appointed by the employees of Petrobras, others by pension funds, and of the employees, six directly appointed by the government. Managers are promoted internally, and employees are hired following a public admission exam similar to the Brazilian public sector admission exam. In the last decade before the crisis it grew to become one of the top 20 listed companies in the world and found one of the largest recent oil discoveries of the 21st century with an estimated 9 billion barrels.

Appointments to the board of Petrobras were made by the political patrons with strong ties to the construction industry. A great example is provided by Paulo Roberto Costa who started working for Petrobras in 1978. Many executives such as Costa, with long and successful careers in Petrobras, knew from the outset the trade-offs they would have to face. The appointment of these managers is extremely important due to their responsibilities inside Petrobras. Costa was managing billions of dollars in contracts as seen in table 6 and this led to several losses to Petrobras in every single project due to corruption and technical flaws. Petrobras appointments were made politically; a common formula is seen in the figure below.

Insert Figure 1 about here

Also, the cartel members were heavily dependent upon government contracts and their performance was exceptional, particularly compared to general growth of the economy, and other sectors and even competitors in the construction industry.

Insert Table 2 about here

FINDINGS

This is a complex corruption case with many players involved. The focus of the analysis are the firms that supplied services to Petrobras and their top managers. These firms supplied billions of dollars of services to Petrobras and created a cartel that grew over time. They had several strategies to maintain internal cohesion, to deal with other threats, and to increase and spread its influence. The nonmarket strategies were composed of different sets of practices such as: political campaign financing, bribe paying to Petrobras executives and financing

to politicians that would help them appoint desired managers in public controlled companies. Internally, the cartel adopted a number of strategies for its survival and to maintain its cohesion for a sustained period of time. They include the establishment of common rules on bribes, a clear hierarchy of firms, policing of its members and the diffusion of membership. The cartel had several strategies to deal with the external environment, replace its members, and internally had clear rules to enforce its agreements. In the next sections we describe the functioning and strategies adopted by the cartel of suppliers of Petrobras.

Institutionalisation of the cartel

A document apprehended by the federal police in 2014 was headed 'Proposal to close the bingo', which showed rules similar to the Brazilian football league, but with corrupt prizes. This offers an insight into the allocation mechanism and rules of the cartel.

Insert Figure 2 about here

The figure above is one of the apprehended documents showing the formalized group. In their 'game', the prizes are in the subsection of the contracts of Comperj Refinery. Such practices extend to several other contracts. In order to maintain the equilibrium on a large amount of contracts being bid by the group, they created a clear accountability and rulebook regarding the division of tenders. This helped to build trust, cohesion and stability between members of the group and was successful for at least a decade. An example is on how the negotiation and payment of bribes happened; members shared the bribe costs as a consortium rather than individual company.

Mechanisms and Strategies inside firms of the Cartel

To maintain corrupt activities, executives inside organisations also had to deal with the internal pressures of their own firms. Another threat related to the group was the legitimate compliance groups inside their own firms. The strategy adopted by corrupt executives was to create a mirror system and fake compliance system to hide from the internal legal accounting system. Examples of them are:

Compliance and shadow system. Large companies are required to have a compliance department in Brazil in order to be part of the stock exchange and access national and international funds. However, the internal compliance department although taken in consideration, were not seen as particularly efficient.

Ambiguity of Technical Contracts. In order to maintain corrupt activities, agents inside organizations had to deal with the internal pressures. Several of the tenders designed by Costa had critical technical flaws. Yet these flaws were used as tools to pay bribes.

Trust. The complex set up of the oil and gas field, with its technical nature, norms and rituals requires trust among agents. However, these poorly structured projects also carried high risk; including miscalculated overall cost of the projects. These failures created huge internal tensions at the construction companies, and bribes were paid even when there was a loss on a project.

Routines. For the field maintenance it, was also important that when a new member arrived or replaced another, he (they were exclusively male) was socialized and introduced to the previous commitments accepted by the organization. Here, by entering the network, certain conditions had to continue to maintain existing processes.

Managing tensions and shocks across the industry

It is important to remember that these corrupt relationships resisted several shocks over the years. During this period of great interaction and difficulties, members tried to make sure that the cartel was preserved. Trust was reinforced internally, and aided the creation of the cartel. This colluding and setting of boundaries was a process of institutionalisation, where rules were gradually defined to maintain such activities.

Influencing Politicians and rival Business executives

Corporate political activity scholars have identified private companies' campaign donations as a nonmarket strategy (Mellahi, et all, 2016). This was also a strategy adopted in Brazil and five of the 10 largest official contributors to campaigns of all parties were construction companies in the presidential, legislative and governors' campaign in 2014. A campaign cycle that officially cost more than one billion dollars. Yet the executive of Petrobras has a different take on the accepted view and the legitimacy of such a strategy:

"It is a great fallacy to say there is campaign donation in Brazil (...) They are loans to be paid (back) later on by the beneficiaries of (such) contributions when (in their) positions" *Paulo Roberto Costa, Testimony (plea agreement) Federal Court 9/3/15*

Executives mention the pressure they faced and the figure below shows how members of the cartel would implement their nonmarket strategies regarding Petrobras and their competitors. They did so by limiting competition and by creating a cartel that also influenced executive appointments at their clients' firms.

Maintaining the Cohesiveness of the Group

The cartel was maintained for a decade engaging in corrupt acts. They employed several common strategies to win bids from Petrobras. Companies can engage in corrupt acts, particularly when collaborating with competitors bidding for contracts. Firms that initially join a cartel face pressures to conform, which leads to corrupt acts cycle. The first pressure comes from the context in dealing with clients, government regulations and the political system; in this case, a public private company, and protectionist government policies. These factors are associated with the internal pressures of a cartel. Cartel members created their own rulemaking, hierarchy, new members' co-optation and joint decisions for corrupt nonmarket strategies.

Insert Figure 3 about here

This figure analyses the source for corrupt acts at the field level with a focus on the dynamic processes and tensions that arise from corrupt relationships and how these are successfully maintained over years. We see that different pressures enacted together only increase the propensity for corruption.

DISCUSSION

In this study we attempt to bridge these gaps by looking at how and when businesses engage in corrupt act, what pressures lead to such outcome and what strategies they deploy. From this in-depth case study, we tried to understand: *What strategies are used by corporations and individuals to maintain long term corrupt relationships*?

To maintain a corrupt field across a lengthy period of time, members of the cartel worked to maintain, repair and even prevent change of their context. Therefore, to maintain corrupt activities in time there seem to have been boundary definition, rules, policing and deterring. Boundaries are necessary when choosing to expand membership of the corrupt group during the year. Rules are created for the assignment of contracts according to need. Policing was used to make sure bribes were being paid in time, and who can join the corrupt group. Finally, there needs to be deterring of other companies from participating on the overall business.

This case study demonstrates how corrupt practices can be maintained across time and the strategies corrupt firms adopt to maintain the corruption. Corrupt actors inside firms co-opt, influence and control processes across the industry, while concealing such activities to their own company's compliance team and society. In our case, these corrupt nonmarket strategies led to short-term financial gains via the awards of multibillion contracts so there are financial and institutional pressures to participate in corrupt arrangements. However, it became a self-defeating strategy in the medium and long run since once uncovered, led to the demise of the managers themselves and their firms. The negative impact of corruption led to the loss of credibility, destruction of public image; collapse of market value, and in many cases, bankruptcy.

Contribution to the understanding of corruption and nonmarket strategy

Nonmarket studies have shown that in many cases stakeholders with stronger ties to the top management team may take precedence over demands of other stakeholders (Michelson, 2007) and also the effects of campaign contributions on policy (Holburn & Vanden Bergh, 2014). We extend the literature by showing that even corrupt groups adopt a portfolio of nonmarket strategies to keep their cohesion rather than necessarily only maintain their competitive advantage. Such relationships are not strictly based on a resource dependency interaction among peers. Therefore, corruption seems to be much more socially embedded and institutionalized than the previous literature demonstrated and not only a rational decision.

Contribution to empirical research

Strategy scholars should be more creative on the use of widely available data, particularly reliable court proceedings. Most nonmarket research has also been at macro level (Lawton, McGuire, & Rajwani, 2013), this paper focuses at the organizational and industry level. Thus we offer pathways that enrich strategy scholars' empirical research using widely available non-conventional data from legitimate sources for different levels. This means to apply theories, tools and methodologies from legal studies, sociology, and other related social sciences. By understanding and explaining the behavior of managers in such firms we can better understand the persistence of problematic corrupt practices and how it is spread. Policy makers and compliance professionals should think about how to tackle individual pieces of this puzzle/mechanism to limit corruption enhancement and embeddedness.

CONCLUSION

This study focuses on a corrupt cartel that survived for 10 years in Brazil and was maintained through a series of actions. We tried to better understand this complex phenomenon, corruption, how it occurs, persists and the institutional strategies at the individual level, organisational level and field level.

We analyse how corruption is maintained over time, and what institutional mechanisms underpin this phenomenon. We also analysed in-depth, the processes and strategies adopted by managers and firms of a corrupt field. We ultimately identify the reasons on how a cartel is able to sustain for a long term a fragile partnership.

By understanding how corruption works, anticorruption officials, managers and compliance departments can get more insight into how such strategies are put into place and how to develop a toolkit to fight the problem. Furthermore, by using non-traditional data we bring new insights to the field of strategy. Finally, the study contributes to strategy and corruption literature by studying a phenomenon relevant in all societies, while connecting it to nonmarket strategy.

		7	lables			
TABLE 1 Data sources available				TABLE 2Average annual growth of top constructioncompanies from 2002-2013		
Data Source Data available						
Parliamentary Commission of Inquiry	Main stakeholders of Petrobras were invited to testify	More than 120 people questioned, 230 hours of sessions. 6,000 pages transcribed.		Largest Brazilian Construction Companies	Average annual percentage growth year in decade	Public Sectors Contracts Average in the period
Trial Documents	Plea agreement interviews, videos and transcripts -Preliminary investigation report	50 investigated operators, 30 hours of interviews and videos. 1,000 pages or investigation reports		Andrade Gutierrez Camargo Corrêa Galvão Mendes Junior Trading	34.6 23.37 51.2 24.88	1 44 67 86
Economic Data	Documents issued by public a	authorities: central bank, tra	ade associations,	Norberto Odebrecht OAS	23.692 27.72	56 59
Financial Data		Construction Sector Trade Body, companies public balances			24.14	78
				Average year growth of Other industriesmanufacturing (3.36), Construction Sector (5.9), Agriculture, (3.06), Services, (4.06), GDP (4.03)Source: Compiled by author, Brazilian Central Bank and Brazilian civil construction trade body (2017)		
Figures						
<section-header><section-header><section-header></section-header></section-header></section-header>			FIGURE 2 Strategies applied to the use of internal cohesion Managing tensions inside the organization Adaptation and socialization of new members into the corrupt practices			
FIGURE 3 Printed rulebook of the cartel apprehended by investigators SPORT CLUB UNIDOS VENCEREMOS 1. O SPORT terá 7 (sete) jogadores principais : - Paulistano - Mineiro - Bajaninho - Paulista				TRANSLATION APPREHENDED DOCUMENT: Title- Sport Club United We Will Win Bullet point 1- LIST of 7 Companies participated, nicknames familiar to football supporters. Bullet point 2- Rules about prizes (participation)		

- Júnior - Novo Baiano

- Carioquinha

2. Todos terão a mesma (remuneração) participação independente de serem titulares ou não durante os jogos;