The structure and dynamics of the CEO's "small world" of stakeholders. An application to industrial downsizing

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The structure and dynamics of the CEO’s “small world” of stakeholders. An application to industrial downsizing

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ABSTRACT
Stakeholder theory highlights that a CEO must perform a social responsibility toward multiple stakeholders (employees, politicians, journalists, citizens, etc.). These stakeholders constitute a political system and the CEO develops a political strategy to deal with the claims of the different actors. This article mobilizes social network analysis and complex networks theory to build a dynamic theory of stakeholders’ networks. One approach to business networks highlights a “small world” structure characterized by dense clusters of stakeholders connected by very few ties. To varying degrees corporate leaders are embedded in clusters of stakeholders, and such clusters are subject to systemic shocks that can be random or intentionally provoked by the CEO. This framework is used to analyze the evolution of the employment relationship during an industrial restructuring. The employment contract is not limited to a relationship between an employer and an employee. Rather this relationship is embedded in a network that may involve several stakeholders. The strategic decision to downsize an organization in response to a systemic shock destabilizes the cluster of stakeholders and leads the CEO to define a political strategy to manage the layoff crisis.

1. Introduction

Explanations of the behavior of corporate leaders are sometimes reduced to their economic responsibility to maximize profits and to promote shareholders’ interests (Friedman, 1962). However, Bowen and Johnson (1953) highlight the social responsibility of the firm. Corporate leaders and the firm are bundled with other actors of the society in an implicit social contract that expands the corporation’s responsibilities beyond its own business considerations to include its social responsibility (Donaldson, 1982). According to stakeholder theory - ST - (Freeman, 1984), a corporate leader is not only responsible to the firm’s shareholders. He is also responsible to a multitude of other actors, including employees, unions, customers, politicians, suppliers or journalists. All these stakeholders have specific interests, and they constitute a political system in which the CEO and the firm interact (Harrison and Wicks, 2013; Tashman and Raelin, 2013). The ability of a stakeholder to compel the CEO to consider his claim depends on the stakeholder’s legitimacy, the stakeholder’s power related to the detention of resources and the urgency of the situation (Mitchell et al., 1997).

A CEO might adopt different political strategies to deal with these claims and the stakeholders’ bargaining power (Ali, 2017; Carroll, 1979; Frooman, 1999; Vazquez-Brust et al., 2010).

Despite its many contributions, ST suffers from some limitations (Agle et al., 2008; Barnett, 2014). First, the relationships between the CEO and its stakeholders are mainly analyzed as bilateral and the political system is understood as the sum of direct dyadic relationships centered on the firm (Bergström and Diedrich, 2011; Ferrary, 2009; Rowley, 1997). This approach ignores the multi-lateral interactions between the CEO and stakeholders and the indirect influences of alliances with or coalitions against the CEO (Hillman and Hitt, 1999). Second, ST does not explain a CEO’s choice of political strategy and does not provide a dynamic perspective to explore the evolution of the stakeholder network (Avetisyan and Ferrary, 2013). A CEO is typically not in constant interaction with all the firm’s stakeholders. The number, the nature and the intensity of interactions change over time. These limitations of ST raise several research questions: What are the multi-lateral interactions among the stakeholders and how do these interactions influence the CEO’s behavior? What explains the dynamics of the relationships between the CEO and its stakeholders? What determines a CEO’s political strategy to address stakeholders’ claims?

The purpose of this article is to enrich ST with contributions from social network theory (Burt, 1997; Granovetter, 1973, 1985, 2005) and complex networks theory (Barabasi et al., 2006; Jen, 2006; Newman, 2003; Watts, 2004). Embeddedness shapes personal motives and collective order (Granovetter, 2017). Thus, we seek to understand stakeholders as a network of actors in which the CEO is embedded. The strength of the ties, the network density and the degree of embeddedness influence information flows, access to resources, the emergence of
social norms that define what is legitimate or not and the social pressure on actors to respect these norms (Granovetter, 2005). The degree of CEO embeddedness determines both their vulnerability to economic coercion that stakeholders exert and their susceptibility to social pressure from those same stakeholders with respect to social norms, especially norms related to social responsibility. We build on Rogut and Walker’s findings (2001) that, in a globalized economy, large firms are embedded in social networks structured as “small world”. A “small world” network is a set of closely-knit clusters of firms based on national systems of governance. These national clusters are loosely connected with each other through a limited number of ties (Watts and Strogatz, 1998). Thus, a CEO tends to be highly embedded in the domestic stakeholder cluster and less embedded in foreign clusters of stakeholders (Corrado and Zollo, 2006; Davis et al., 2003; Rogut and Walker, 2001).

In a dynamic perspective, complex networks theory (Barabasi et al., 2006; Jen, 2006) defines a network as a stable system resulting from a balance between the interests and the bargaining power of its components. A network can be subject to systemic shocks that destabilize the whole network and lead actors to interact and negotiate in order to find a new equilibrium. Systemic shocks can be random and come from outside of the network or they can be intentional and caused by one of actors of the network (Jen, 2003). Depending on its density, the dynamics of the network that is subject to the shock might lead the network to return to its original equilibrium or evolve to a new state (Jen, 2006). This framework can be applied to ST by conceptualizing the network of stakeholders in which the CEO is embedded as subject to random shocks from outside or intentional shocks produced by the CEO. The nature of the shock affects the legitimacy of the corporate leader and the urgency of the situation. When the CEO suffers a random shock, he faces a situation of urgency. In this case, it is socially more acceptable for him to violate collective norms, especially to rescue the firm, since he was not responsible for the shock. Conversely, when the CEO intentionally causes the systemic shock, he has greater control over the timing of the shock but the legitimacy of violating collective norms may be vigorously challenged by stakeholders, particularly if the firm is profitable.

This dynamic perspective highlights differences in how embeddedness contributes to the firm’s performance. Usually high embeddedness is understood as a competitive advantage for the firm since embeddedness provides access to specific and tacit knowledge, resources and opportunities (Owen-Smith and Powell, 2004). Moreover, trust between actors reduces moral hazard and facilitates coordination (Podolny, 2001). Some scholars point out that overembeddedness might hamper firm performance. Uzzi (1996, 1997) posits that there may be structural limitations to embeddedness. Overembeddedness creates high levels of dependence on the network for resources and opportunities, reduces the flow of critical information from outside and might induce irrational behavior (Uzzi, 1997:57). We propose a contextual understanding of the limitations of embeddedness. A high level of embeddedness is a competitive advantage as long as the CEO’s interests converge with stakeholders’ interests. When interests diverge, embeddedness becomes a constraint. Stakeholders might deprive the firm from strategic resources and use social pressure to compel the CEO to change his behavior. In a dynamic perspective, a shock changes the equilibrium of interests between the stakeholders of a network and might create a divergence of interests. Conversely, a lower level of embeddedness is a disadvantage when interests converge but it facilitates CEO’s decision when they diverge. Thus, economic action is embedded in social relations which sometimes facilitate and at other times derail exchanges between a CEO and his stakeholders.

The main proposition of this article is that the political strategy of a CEO is determined by (1) the degree of the CEO’s embeddedness in the cluster of stakeholders that are impacted by his strategic decision and (2) the nature of the systemic shock that destabilizes the network and disrupts the equilibrium of interests. A typology based on the degree of the CEO’s embeddedness and the nature of the systemic shocks explains the conditions under which a CEO pursues any one of the four categories of political strategies defined by Carroll (1979).1 When the systemic shock is random, CEOs who are less embedded in the network of stakeholders will pursue a reactive strategy. Facing a similar random shock, highly embedded CEOs will favor an accommodative strategy. When the shock is intentionally caused by the CEO, a CEO who is less embedded in network of stakeholders will follow a proactive strategy, and a highly embedded CEO will follow a defensive strategy.

This framework is used to analyze the evolution of the employment relationship during an industrial restructuring. The employment contract is not limited to a relationship between an employer and an employee. Rather this relationship is embedded in a network that may involve several stakeholders (Guerci and Shani, 2013; Neville and Munguc, 2006; Rowley, 1997; Savage et al., 1991). According to this perspective, the strategic decision to downsize an organization in response to a systemic shock destabilizes the network of stakeholders and leads the CEO to define a political strategy to manage the layoff crisis. Four examples of industrial restructuring accompanied by redundancies in France in 2012 illustrate this model. In addition to the similarities in the timing and location of the four cases, 2012 is a particularly important year because France was experiencing a period of economic crisis accompanied by rising unemployment during this time. Moreover, there was also a presidential election in 2012. These two factors made job protection an even more important economic and political issue for many stakeholders. In addition to information provided by annual reports, the extensive media coverage of industrial restructuring provides many secondary data sources that illustrate the conceptual model (press releases, interviews, newspaper articles and blogs).

First, several concepts that are useful for building a network theory of stakeholders are introduced. Second, the theoretical framework of a network theory of stakeholders is built from the articulation of ST and social network theory. Third, complex networks theory is mobilized to explore the dynamic evolution of networks of stakeholders. Fourth, the concepts of systemic shocks and the degree of embeddedness are utilized to build a theoretical model that explains CEOs’ choice of political strategy. This model is then illustrated using four examples of industrial restructuring that occurred in France in 2012.

1.1. The stakeholder theory

1.1.1. The nature of stakeholders

Stakeholders are defined as any individual or group, formally constituted or not, that can affect or be affected by the operations of the firm (Freeman, 1984: 25). A stakeholder may claim a portion of the value created by the firm, or they may simply have an interest in the existence of the firm (Donaldson and Preston, 1995). Freeman (1984: 55) established a non-exhaustive list of twelve stakeholders: shareholders, the financial community, customers, consumer associations, trade unions, employees, professional associations, competitors, suppliers, government and political parties.

Other scholars have also classified these stakeholders. Clarkson (1995) distinguishes between primary stakeholders who depend upon the survival of the firm. The relationships can be contractual (creditors, shareholders, long-term suppliers, customers) or non-contractual (government and community). Secondary stakeholders are not directly involved in the firm’s activity, but they can be influenced by the firm or influence it (media, interest groups and public opinion) (Laplume et al., 2008).

Stakeholders are characterized by their interests which determine their utility functions, their preferences and the nature of their claims (Donaldson and Preston, 1995; Harrison and Wicks, 2013). The

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1 Carroll’s typology has been used by several scholars in the field of ST: Clarkson (1995), Warrick and Chochran (1985) or Jawahar and McLaughlin (2001).
behavior of a stakeholder is driven by his desire to satisfy his interests (Barnett, 2014; Freeman, 1984; Rowley and Moldoveanu, 2003). For example, shareholders' interests are related to the firm's growth and profitability; employees are concerned about their jobs and their remuneration; governments focus on unemployment and tax revenue (Ferrary, 2009).

Convergences and divergences of interests between stakeholders and the CEO determine their interactions (Frooman, 1999; Wolfe and Putler, 2002). The divergence of interests leads to competition. A stakeholder might demand a change in the CEO's behavior to satisfy his own interests. The CEO's and stakeholders' interests may also converge, and this promotes cooperation between the two actors (Savage et al., 1991). The CEO or the claiming stakeholder may articulate their interests in terms of the interests of other influential stakeholders in order to involve these other stakeholders in a cooperative relationship (Bergström and Diedrich, 2011).

1.1.2. Stakeholders' influence

ST also defines stakeholders based on their ability to gain the CEO's attention and to influence him. Mitchell et al. (1997) prioritizes the importance of stakeholders according to the stakeholder's ability to change the CEO's behavior. This bargaining capability is related to three dimensions: the stakeholder's power, which is associated with holding a resource necessary for the firm; legitimacy, defined as behavior that is socially accepted and expected by other stakeholders, and the urgency of the situation (Mitchell et al., 1997).

Each actor can mobilize different forms of legitimacy to justify his actions (Ferrary, 2009). The survival of the firm justifies the CEO's behavior, trade unions justify their actions by defending the interests of employees, and elected politicians legitimate their behavior by the promotion of the citizens' well-being. During an industrial restructuring, the firm's financial situation determines the legitimacy of the CEO's decision to cut jobs. If the firm is profitable, an organizational downsizing with numerous redundancies is likely to be perceived as illegitimate by employees and some stakeholders. Conversely, when the firm faces significant losses, an industrial restructuring and layoffs are seen as more acceptable because they appear to be necessary to save the company and the jobs of the remaining workers. For example, in the aftermath of the 2008 financial crisis, numerous banks suffered major financial losses and cut thousands of jobs to survive. This happened without any major conflicts with impacted stakeholders (employees, unions, policy makers, customers and media).

Power relationships between corporate leaders and stakeholders are driven by the exchange of resources held by these actors (Pfeffer and Salancik, 1978). A stakeholder can withdraw the resources which he controls and on which the firm depends in order to encourage the CEO to satisfy the stakeholder's claim. For example, when employees go on strike, they withdraw their labor to influence the behavior of their employer. Stakeholders can also leverage their contributions to the firm to further their own interests. For example, the government can condition their financial support to the firm on the number of jobs that the firm saves.

The degree of interdependence between the firm and the antagonistic stakeholder determines the nature of the relationship (Frooman, 1999). The firm is dominant if the stakeholder depends on the resources of the firm to a greater extent than the firm depends on the stakeholders' resources. There is a strong interdependence if each of the actors is heavily dependent on the resources of the other and a low interdependence if neither of the actors depends on the resources of the other. Finally, the stakeholder is dominant if the firm depends on the stakeholder's resources but not the reverse.

Finally, the urgency of a situation due to special events (Mitchell et al., 1997), such as macroeconomic crises or natural disasters, is a contextual dimension that determines the significance of a particular stakeholder in the management of the situation.

1.2. A theory of networks of stakeholders

1.2.1. Nature of ties between stakeholders

Social networks theory characterizes interpersonal relationships according to their strength. For Granovetter (1973:1361), the strength of social ties between two individuals is “a (probably linear) combination of the amount of time, the emotional intensity, the intimacy (mutual confiding) and the reciprocal services which characterize the tie”. Common interests and interdependence contribute to the strength of a tie between two actors. These interests might be economic or non-economic. As actors share more interests, they interact more often and thereby build stronger ties. Conversely, if the interests of two actors barely overlap, they will have little reason to interact. In this case, the social tie will be weak or may not even exist.

Moreover, common interests between two actors can be convergent or divergent. The more convergent the interests, the stronger the cooperation within the relationship will be. However, common interests between two actors may also be divergent. In this case, their interdependence can lead them to interact competitively to further their respective interests. As the interests between the actors diverges, the competition and conflict between the two will increase.

These two dimensions, the strength of ties and the convergence of interests, defines four possible types of ties between stakeholders (Fig. 1).

The cooperative routine (weak tie and cooperative relationship) results from a low level of interdependence and a convergence of interests between the two actors. Actors in a cooperative routine do not interact intensely and may routinize their relationship. A cooperative routine usually characterizes the employment relationship between the employer and its employees.

The status quo (weak tie and competitive relationship) results from a low level of interdependence and a divergence of interests between the two actors. This relationship is also characterized by a lower intensity of interactions. Under conditions of equal bargaining power, both stakeholders may agree that a balance of power is the status quo. This type of relationship typically characterizes the relationship between the employer and unionized employees.

The alliance (strong tie and collaborative relationship) results from a high level of interdependence and a convergence of interests between the two actors. Actors in alliances interact frequently and form a strong, cooperative tie. Strong ties of cooperation often characterize employer-employee relationships in high-tech, rapidly growing start-ups.

<table>
<thead>
<tr>
<th>Strength of the tie</th>
<th>Weak</th>
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<tbody>
<tr>
<td>Divergent</td>
<td>Status quo</td>
<td>Conflict</td>
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<tr>
<td>Interests</td>
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<tr>
<td>Convergent</td>
<td>Cooperative routine</td>
<td>Alliance</td>
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Fig. 1. The nature of ties.
The conflict (strong tie and competitive relationship) results from a high level of interdependence and a divergence of interests between two actors. Conflicting actors interact frequently and experience strong, yet competitive ties. In employment relationships, this type of relationship characterizes the conflicts between employees and employers, particularly during layoffs.

The strength of tie (strong or weak) and the interests (convergent or divergent) between actors may vary over time. The ties between the CEO and his employees can be strong and cooperative when the firm is funded and experiencing growth. The ties may become weak and competitive when the business is mature and that the interactions have become routinized. This relationship often becomes strong and competitive during labor conflicts or redundancies.

The first three types of ties - cooperative routine, the status quo and an alliance - are stable relationships that can last a long time. Conversely, conflict is intrinsically unstable and might evolve toward four different configurations. It can be broken or it can become a cooperative routine, the status quo or an alliance.

1.2.2. The density of the stakeholder network

Among a given set of actors, the strength of the ties results in networks with varying levels of density (Granovetter, 1973, 1985). Dense networks are cliques of individuals linked by strong ties and sparse networks are characterized by structural holes corresponding to weak ties or the absence of ties between actors (Burt, 1997). Sharing common interests increases interactions between actors and contributes to the network density (Ferrary, 2003). More interdependent actors have more frequent interactions and stronger the ties. Stakeholder networks with greater levels of interdependency are therefore denser. Communities are defined as dense networks.

Network density must also be understood in terms of multi-dimensionality or social depth. Each actor is characterized by his role’s multiplexity which leads him to interact in different social spaces, such as personal or professional settings (Uzzi, 1996; Verbrugge, 1979). An actor can simultaneously be an employee, citizen, parent, neighbor, shareholder, and voter. These roles led him to interact in distinct coexisting social spaces. A social network is denser when the actors interact in different social spaces.

Finally, geographic proximity also contributes to network density by promoting interactions between individuals and reducing costs socialization (Ferrary and Granovetter, 2009). Networks of stakeholders located within the same city, a region or even a country, form dense social networks. Geographic distance limits social interactions and reduces the network's density. Research on industrial clusters illustrates the importance of common interests and geographic proximity in explaining the density of social networks (Saxenian, 1996). Within the same geographic area, corporate leaders, employees, trade unionists, politicians, civil-servants and journalists share a common interest in the local economy. They form a dense and localized network of stakeholders.

The density of a network influences the flow of information, the access to resources, the emergence of collective norms and the social pressure to comply with these collective norms (Burt, 1997; Granovetter, 2005). Corporate social responsibility is a social norm produced collectively by a community of stakeholders. The denser the network is, the more information that flows between its members. Also, in high density networks, actors have better access to the resources they need, shared collective norms emerge more easily and there is greater social pressure on members to comply with these norms. Conversely, in the low density social network, less information flows between actors, actors have greater difficulty in accessing resources, there are weaker collective norms and the social pressure on actors to respect these norms is lower. The density of the stakeholder network therefore determines the level of social pressure that the community places on its members to comply with collective norms.

1.2.3. The network structure of the “small world” of stakeholders

One perspective on social networks highlights that network structures alternate between dense clusters and structural holes (Burt, 1997). Watts and Strogatz (1998) gave a mathematical definition of network structures that are made up of dense clusters of actors that are loosely connected with each other (Fig. 2). They labelled it a “small world”. A
small world network is characterized by a large number of components, with a sparse, decentralized and, highly clustered structure (Watts, 2004). Clusters are dense networks in which actors are connected by strong ties. Transitivity of strong ties (Granovetter, 1973) contributes to network density within clusters. Conversely, clusters are connected to one another by weak ties that are not intrinsically transitive. This explains the persistence of structural holes in the “small world” network structure.

1.2.4. The degree of embeddedness of the CEO in the small world of stakeholders

The two actors in the bilateral relationship described by ST (the CEO and a claiming stakeholder) may be embedded in a given network to varying degrees. CEOs that are more embedded in a network of actors are more vulnerable to the stakeholders' power to deprive them of resources. Also, the more embedded he is, the more sensitive that he may be to the social pressure to respect the social norms of the network.

The claiming stakeholder may also be more or less embedded in the network. For example, employees may be highly embedded and maintain strong ties with other stakeholders. They may be unionized and have strong ties with their trade union organization. Some of them may be local politicians or active members of the community life. Conversely, in other situations, the employees may be less embedded within the local network of stakeholders.

Four configurations of the level of embeddedness of the CEO and the claiming stakeholder are possible (Fig. 3). The CEO and the claiming stakeholder may both be less embedded in the network of stakeholders. The CEO may be highly embedded while the claiming stakeholder has fewer or weaker ties to the network. Conversely, the claiming stakeholder may be highly embedded but not the CEO. The fourth configuration occurs when both actors are highly embedded in the network of stakeholders.

The degree of embeddedness of the CEO and the claiming stakeholder determines the capacity of each to access information, to mobilize resources and to overcome the social pressure exerted by the community to follow collective norms. When the CEO is less embedded in this network, he is less sensitive to the economic coercion and the social pressure exerted by the network of employees and other stakeholders to fulfill his social responsibility. In this case, the CEO can prioritize his economic responsibility toward the shareholders and neglect his social responsibility toward employees and other stakeholders. Conversely, when the CEO is highly embedded in a given network of stakeholders, he is very dependent on the resources held by the other actors in this network and he is more sensitive to economic coercion and social pressure that they can exert. Being highly embedded obliges the CEO to compromise between his economic responsibility and his social responsibility when making strategic decisions.

A “small world” structure, a given actor might occupy two distinct structural positions (Fig. 4). He can be highly embedded in one network of stakeholders and poorly connected to another. A CEO who is highly embedded in a cluster of N stakeholders has N-1 ties with the other members of the cluster (A in cluster 1). A less embedded CEO has one tie to a single member of the cluster (A in cluster 2). In a small world made up of X clusters, the CEO's ties to each cluster range from 1 to N-1. In terms of the strength of these connections, a highly embedded CEO nurtures strong ties with the stakeholders of the cluster. When he is less embedded his links with the cluster tend to be weaker.

Kogut and Walker (2001) use the small world theory to describe the German economy. Their results show that ownership ties among German firms constitute a “small world”. The German national system of governance forms a close-knit cluster of stakeholders that is loosely connected to other national systems of governance. These conclusions were extended to other countries, such as Italy (Corrado and Zollo, 2006), the US (Davis et al., 2003) and Korea (Kogut, 2012). In a globalized economy, domestic stakeholders constitute dense clusters that are loosely connected to stakeholders in other countries. A CEO tends to be highly embedded in his national cluster of stakeholders and less embedded in foreign ones. His level of embeddedness shapes his access to resources, opportunities and also his considerations when making managerial decisions.

1.2.5. Embeddedness and competitive advantage

Usually, high embeddedness is understood as a competitive advantage for the firm since this position gives the firm access to specific and tacit knowledge, resources and opportunities (Owen-Smith and Powell, 2004). Moreover, trust between actors reduces moral hazard and facilitates coordination (Podolny, 2001).

Some scholars point out that overembeddedness might hamper firm performance. Uzzi (1996, 1997) introduces embeddedness as a structural limitation by hypothesizing that actors can be too embedded. He argues that overembeddedness creates a high level of dependence on the network for resources and opportunities and, this dependence might become a vulnerability if a core actor disappears. Overembeddedness also reduces diversity and the flow of critical information from outside, which are necessary for the organization to adapt. Finally, overembedded actors might experience feelings of obligation and friendship that induce economically irrational behavior (Uzzi, 1997:57–59). In contrast to an underembedded network (only arm’s-length ties) and an overembedded network (only embedded ties), Uzzi (1996, 1997) concludes that there is an optimal level of embeddedness which mixes embedded ties and arm’s-length ties in an integrated network.

We propose a contextual approach to understanding the limitations of embeddedness. High levels of embeddedness are a competitive advantage as long as the CEO’s interests converge with the stakeholders' interests. When these two sets of interests diverge, embeddedness becomes a constraint. Stakeholders might deprive the firm from strategic resources and use social pressure to encourage or force the CEO to change his behavior. Conversely, a lack of embeddedness is a disadvantage when the CEO's and stakeholders' interests converge since they cannot coordinate their efforts. However, it but facilitates CEO's decision when interests diverge. Economic action is embedded in social relations which sometimes facilitate and at other times derail exchanges between a CEO and his stakeholders. There is no intrinsic benefit from embeddedness, but in certain contexts, such as when actors' interests converge, embeddedness creates an advantage for the CEO and the firm.

A dynamic perspective is required to understand how converging interests might come to converge. Complex networks theory contributes to this dynamic perspective by analyzing systemic shocks. A shock disrupts the alignment of interests between the stakeholders in a network.

1.3. Systemic Shocks and dynamic evolution of network of stakeholders

1.3.1. The network of stakeholders as stable system

Complex networks theory is part of a systemic perspective. It considers the network as a system of interacting components that collectively aim to fulfill a specific function (Barabasi et al., 2006). A network is a stable system when there is a balance between the competing interests of its components (Jen, 2003; Watts, 2004). In a stable system,
the interactions between the actors are routine and of low intensity (Jen, 2006).

The extension of complex networks theory to the case of stakeholders leads to the proposition that the function of a network of stakeholders is to create and share value between interdependent actors. A network of stakeholders is usually in a stable equilibrium characterized by weak interactions of cooperation (cooperative routine), competition (status quo) or strong interactions of cooperation (alliance). Network stability results from the balance between the satisfaction of stakeholders' interests and the legitimacy of strategic decisions. The employment relationship between the employer and its employees is usually embedded in a stable network of stakeholders characterized by low-intensity routine, cooperative interactions or by high-intensity interactions of an alliance.

Complex networks theory analyzes the robustness of networks subject to shocks (Jen, 2006; Newman, 2003). The structure of the network ex ante has important implications for the dynamics of the network subjected to a shock and the equilibrium emerges ex post (Kretschmar and Morris, 1996). A network is more robust and resilient, that is to say capable of returning to its initial equilibrium, if it is denser (Dodds et al., 2003; Jen, 2003, 2006). Conversely, when the network is less dense, it easily moves away from the initial equilibrium and may even disappear when subjected to a systemic shock (Albert et al., 2000).

An extension of complex networks theory to the analysis of stakeholder networks suggests that the denser the network is, the more robust the network is and the more the network will tend to return to its original equilibrium when subjected to a shock. In dense networks, the flow of information, the economic interdependence, the existence of collective norms and the intensity social pressure to enforce these norms contribute to the robustness of the system. Conversely, when the network of stakeholders is less dense, there are fewer economic and social forces to bring the network back to its initial equilibrium. In this case, the network of stakeholders may evolve toward a new equilibrium or may even disappear.

After a shock induced by the announcement of an industrial restructuring involving redundancies, the network returns to its initial equilibrium, if under the pressure of the stakeholders, the CEO finally renounces the layoff or greatly reduces the number of job cuts. A similar outcome occurs if the employer maintains the labor contract instead of cutting jobs. Alternatively, an industrial restructuring may break labor contracts, lay off workers and force workers to find a job with another employer. In this case, the network of stakeholders evolves toward a new equilibrium in which the firm holds a completely different position or no longer belongs to the network.

A shock such as an industrial restructuring triggers conflicts between actors and can lead to changes in these economic relationships. The relationship can end if the employer leaves the cluster of stakeholders, or it can move toward a cooperative routine in which the CEO maintains a weak tie to the cluster. It might evolve toward the status quo or an alliance. The degree of embeddedness ex ante influences the
nature of the tie \textit{ex post}. A loosely embedded CEO nurturing a single weak tie with a cluster might break the tie or the relationship may evolve into a cooperative routine during this conflict. The relationship of a highly embedded CEO facing a conflict might move toward a status quo or an alliance.

Our proposition is that when the CEO is embedded in the network of stakeholders to a greater extent and he experiences more economic coercion and social pressure, he is more likely to restore the initial equilibrium of the network to a status quo or an alliance. In the case of industrial restructuring, he renounces or limits the initial planned redundancies and fulfill the firm’s social responsibility to provide employment. Conversely, when the CEO is less embedded in the network, he is less sensitive to the economic coercion and social pressure from stakeholders. Thus, it is easier for him to implement redundancies and contribute to a different equilibrium within the network in which the firm breaks the tie or holds a completely different position through creating a cooperative routine.

1.3.2. Random or intentional systemic shocks

Stable networks are occasionally subjected to systemic shocks that upset the balance of interests and the network’s ability to perform its function (Jen, 2003; Watts, 2004). A shock leads to increased interactions between the components of the network as they seek to balance their interests once again (Jen, 2006). Gradually, the actors adjust, tensions subside and the system stabilizes in a configuration that may be similar to or different from the original situation (Callaway et al., 2000). The dynamics induced by the shock can also lead to the disappearance of the network (Barabasi et al., 2006).

In terms of stakeholder networks, these networks are occasionally subject to shocks that challenge the balance between the CEO and his stakeholders’ converging and diverging interests. These shocks create urgency and change the importance of bargaining resources and the legitimacy of the stakeholders to make any claim. They also lead to an intensification of interactions between stakeholders as they move toward a new equilibrium or return to the initial one. According to this perspective, an industrial restructuring accompanied by redundancies represents a shock that changes the balance of interests between the employee and the employer. Such a shock becomes systemic by involving the interests of several other stakeholders (trade unions, politicians, journalists, suppliers, etc.) that will interact with each other and influence the decision of the CEO.

Complex networks theory distinguishes between random shocks coming from outside the network and intentional shocks coming from inside (Jen, 2006). This distinction allows us to characterize industrial restructuring as either a reaction from the CEO to a random shock that he suffered or as intentional shock imposed by him on the network.

1.3.2.1. Random shocks suffered by the CEO. Albert et al. (2000) analyze the dynamics of electrical networks and the Internet network when subjected to accidental and unpredictable shocks that cause breaks in ties or disappearance of nodes in the network. Extending this work to stakeholder analysis characterizes the network of stakeholders as subject to random shocks. Natural disasters, industrial accidents, or macroeconomic crises are examples of random shocks that could potentially jeopardize the very existence of the firm. A random shock may result in significant financial losses that necessitate action on the part of the CEO to save the firm and restore its profitability. The randomness implies that the CEO does not control the temporality of the shock and should handle the situation as an emergency. However, since the CEO and the firm experience a random shock that endangers the firm’s existence, industrial restructuring and layoffs are seen as more socially acceptable because this response is perceived to be necessary to ensure the survival of the organization.

1.3.2.2. Intentional shocks provoked by the CEO. Intentional shocks are voluntarily provoked by an actor in the network. In their analysis of electrical networks and of the Internet, the researchers consider terrorist attacks aim at undermining the functioning of the network (Willinger and Doyle, 2006). They analyze how the intentional nature of the shock may influence the dynamics of the network differently than a random shock.

In terms of the stakeholder analysis, the CEO can also cause a systemic shock that destabilizes the network of stakeholders. A CEO may, even if the firm is profitable, decide to restructure the organization to reduce costs and increase profitability. The fact that the CEO creates the shock himself allows him to control the temporality and to implement a political strategy to manage the stakeholders’ response. An industrial restructuring that plans to close a factory in order to relocate it in a country where the labor costs are lower and increase profits is one example of an intentional shock imposed by the CEO. However, the fact that the firm is profitable renders the CEO’s decision to cut jobs illegitimate in the eyes of many stakeholders.

1.4. The determinants of the CEO’s political strategy

The articulation of and the degree of the CEO’s embeddedness (low or high) in the network of stakeholders and the nature of the systemic shock (random or intentional) determines his strategy between reactive, defensive, accommodative or proactive strategies (Fig. 5).

The conceptual model using the concepts of embeddedness and shock to explore corporate political strategies is illustrated by four examples of industrial downsizing in France in 2012. Such downsizing has represented major systemic shocks in the French network of stakeholders. In 2012, France was facing a deep economic downturn (0.2% economic growth and increasing unemployment rate\textsuperscript{2}) and presidential elections were planned in May. These two factors made any major redundancy plan a critical political and economic issue for several stakeholders (employees, unions, politicians, media, etc.). The four companies are ArcelorMittal in the steel industry (209,000 employees worldwide), Peugeot-Citroën in the car industry (184,000 employees worldwide), Merck (68,000 employees worldwide) and Sanofi-Aventis (110,000 employees worldwide) in the pharmaceutical industry. The first two have been deeply affected by the economic crisis and made huge financial losses in 2012. The two others were highly profitable in 2012 (Table 1).

1.4.1. The reactive strategy of the less embedded CEO facing a random shock

The randomness of a shock impacting the network of stakeholders means that the CEO does not cause it. The firm suffers from an external phenomenon that negatively impacts the firm’s financial situation. A macroeconomic crisis is one example of this type of shock and may prompt the CEO to restructure part of the firm in order to preserve the

\begin{table}[ht]
\centering
\begin{tabular}{|c|c|c|}
\hline
\textbf{CEO embeddedness} & \textbf{Random} & \textbf{Intentional} \\
\hline
\textbf{Low} & Reactive & Proactive \\
\hline
\textbf{High} & Accommodative & Defensive \\
\hline
\end{tabular}
\caption{Determinants of the CEO’s political strategy.}
\end{table}

\textsuperscript{2} INSEE.
entire organization. The primary responsibility of the CEO falls under the economic objectives of the firm. He is first responsible for reaching a minimum profit that ensures the firm’s survival. This minimal profitability allows him to assume a social responsibility (Tuzzolino and Armandi, 1981). The randomness of an external shock creates a situation of urgency. The CEO has to react quickly to this unexpected situation. For a CEO, when facing a macroeconomic downturn or another unexpected shock, the most rational decision is to reduce production costs drastically by decreasing productive activity and cutting jobs. The randomness of the shock limits the social responsibility of the CEO and makes industrial restructuring and redundancies more socially acceptable. When faced with an exogenous shock, the less embedded CEO’s strategy is a reactive strategy. This strategy is characterized by an immediate action driven by economic rationality without consideration for social responsibility. The reactive strategy is an openly confrontational approach to the claiming stakeholders. A CEO pursing a reactive strategy either intentionally ends the firm’s relationships with claiming stakeholders or deliberately ignores their interests. The CEO adjusts the structure of the organization and makes decisions for the sole purpose of meeting short-term shareholder interests. The CEO does not consider his or her corporate social responsibility and does not deploy a political strategy to deal with potential stakeholders.

The degree of CEO embeddedness in the cluster of stakeholders influences his ability to downsize the firm. Industrial restructuring is more easily implemented if the CEO is less embedded in the cluster of stakeholders. The lower degree of embeddedness means that the firm does not heavily depend on resources owned by the other actors in the cluster. Therefore the CEO is less vulnerable to economic coercion form stakeholders. Lower levels of embeddedness reduce the CEO’s sensitivity to social pressure from other actors in the cluster to respect collective norms of social responsibility. A lower level of embeddedness also reduces the probability that information regarding CEO’s decisions will be obtained by the relevant stakeholders before the official announcement.

From the perspective of complex networks theory, CEOs with low embeddedness are immune to the social pressure to preserve jobs and do not help the cluster to come back to its initial equilibrium. Interactions between stakeholders leads to a new equilibrium in which employees lose their jobs and the firm holds a different function in the network or disappears from it. By downsizing the organization, a CEO triggers a conflict that might evolve toward a cooperative routine if the firm keeps some activities in the same country or lead to the end of the relationship if the firm leaves the country. The CEO’s dependence on the resources controlled by stakeholders and the legitimacy of his decision, which is related to nature of the external shock, shape the likelihood of each outcome.

ArcelorMittal, the steel group, illustrates this strategic response to an external shock. In 2012, European countries faced a major economic downturn. That year, ArcelorMittal’s revenues fell by 10.4% (from €68.2 billion to €61.1 billion) and the company reported a €2.3 billion operating loss (compare with a €3.5 billion operating profit in 2011). For the firm, this shock was a random one. To restore the profitability and deal with the situation of urgency, Mr. Mittal, the firm’s CEO, decided to restructure the organization and to close several mills. In February 2012, the firm has publicly announced the closure in France of the mill in Florange and the removal of 629 jobs. It was a reactive strategy in the response to a random shock created by the economic crisis.

The public announcement of the restructuring led to a huge mobilization of stakeholders. The employees were highly unionized and the trade unions were very well connected with politicians and journalists. Interactions between corporate leaders and stakeholders become strong and competitive (conflict relationships). The CFDT6 made its fight against the closure a symbolic struggle. Its leaders were deeply involved in the case. The media extensively covered the closure.7 Due to the coming presidential elections in May 2012, the national politicians were also highly involved in the situation. The closure of the mill became a major topic of the presidential campaign and the two main candidates, the incumbent President Sarkozy and his main opponent, Mr. Hollande, heatedly debated the issue. In February 2012, Mr. Hollande, in a public speech in Florange, pledged that, if he were elected, he would save the mill. Many promises were made by candidates to keep jobs on the site (nationalization by the government, acquisition of the site for another firm, investment in carbon storage, etc.).

However, in November 30, 2012, despite the involvement of his Minister of Industrial Affairs, Mr. Montebourg, the newly elected president, Mr. Hollande, gave up opposing the closure of the Florange site. The mill finally closed in April 2013. A year later, out of the 629 employees who were laid off, only 120 had obtained new jobs within ArcelorMittal. 200 had retired, and the rest were still unemployed. A new equilibrium emerged in the local Florange network without ArcelorMittal. The firm maintained weak ties in a cooperative way (cooperative routine) with its employees and stakeholders through its activities to social pressure from other actors in the stakeholder cluster to respect collective norms of social responsibility. The employees were highly unionized and the trade unions were very well connected with politicians and journalists.

The randomness of the shock suffered by the firm and the low level of professional and personal embeddedness of the ArcelorMittal CEO in the French cluster of stakeholders explain this evolution. Mr. Mittal, the ArcelorMittal CEO, was not highly embedded in the French network of stakeholders (Table 1). He is an Indian citizen living in London, the

### Table 1

<table>
<thead>
<tr>
<th>Firm</th>
<th>ArcelorMittal</th>
<th>Peugeot-Citroën</th>
<th>Merck</th>
<th>Sanofi-Aventis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock</td>
<td>Random</td>
<td>Random</td>
<td>Intentional</td>
<td>Intentional</td>
</tr>
<tr>
<td>Profitability (operating profit)</td>
<td>−3.76% (€ − 2.3 billion)</td>
<td>−8.3% (€ − 4.6 billion)</td>
<td>18.43% ($ 8.7 billion)</td>
<td>18.05% (€ 6.3 billion)</td>
</tr>
<tr>
<td>CEO professional embeddedness</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Firm nationality</td>
<td>Foreign</td>
<td>French</td>
<td>Foreign</td>
<td>French</td>
</tr>
<tr>
<td>Dependence on the French market</td>
<td>Weak</td>
<td>Strong</td>
<td>Weak</td>
<td>Strong</td>
</tr>
<tr>
<td>Dependence on public administrations</td>
<td>Weak</td>
<td>Strong</td>
<td>Weak</td>
<td>Strong</td>
</tr>
<tr>
<td>CEO personal embeddedness</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>CEO citizenship</td>
<td>Foreign</td>
<td>French</td>
<td>French</td>
<td>Foreign</td>
</tr>
<tr>
<td>CEO localization</td>
<td>Abroad</td>
<td>France</td>
<td>Abroad</td>
<td>France</td>
</tr>
<tr>
<td>French people on the Board of Directors</td>
<td>1 on 11</td>
<td>12 on 14</td>
<td>0 on 15</td>
<td>11 on 16</td>
</tr>
<tr>
<td>French people on the Executive Committee</td>
<td>0 on 8</td>
<td>9 on 9</td>
<td>0 on 10</td>
<td>15 on 20</td>
</tr>
<tr>
<td>CEO political strategy</td>
<td>Reactive</td>
<td>Accommodative</td>
<td>Proactive</td>
<td>Defensive</td>
</tr>
<tr>
<td>Public announcement</td>
<td>Before elections (February)</td>
<td>After elections (July)</td>
<td>After elections (July)</td>
<td>After elections (July)</td>
</tr>
<tr>
<td>Restructuring implementation</td>
<td>Unit closure (1 year)</td>
<td>Slow closure (2 years)</td>
<td>Fast closure (6 months)</td>
<td>Cancelled closure</td>
</tr>
</tbody>
</table>

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6 Confédération Française Démocratique du Travail, one of the major French trade unions.
7 From January 2011 and December 2013, the closing of the Florange mill was mentioned 353 times in Les Echos and 275 in Le Monde (the two main French newspapers).
headquarters of the firm is officially in Luxembourg and operational management is based in the Netherlands. There is one French citizen among the eleven members of the Board of Directors and none of the eight members of the company’s executive committee is French. The company does not benefit from French public procurement or major state grants for research. Its clients are large industrial groups, not individual consumers. In addition, only 6% of its production is delivered to customers based in France. The low level of CEO embeddedness limited the influence of the stakeholders on ArcelorMittal. Mr. Mittal was immune to economic coercion that could have been exercised by stakeholders through resource withdrawing. Moreover, his low level of personal embeddedness limited his susceptibility to social pressure from stakeholders to make a socially responsible decision and preserve jobs. Finally, considering ArcelorMittal maintained a couple of entities in France, the conflict evolved toward a cooperative routine with the national cluster of French stakeholders.

1.4.2. The accommodative strategy of the highly embedded CEO facing a random shock

As in the previous case, due to a random shock, the CEO faces an urgent situation in which he must ensure firm’s survival. However, the CEO’s high level of embeddedness in the stakeholder cluster influences the interactions within and the dynamic evolution of the network. The high level of embeddedness results from the firm’s dependency on the resources held by other actors in the cluster. Thus, these stakeholders are able to use their resources to influence the decisions of the CEO. This resource dependency promotes social and economic interactions between the CEO and his stakeholders through which collective norms emerge and are enforced. In case of an industrial restructuring, embeddedness makes the CEO more sensitive to the social pressure from the stakeholder cluster to assume his corporate social responsibility and save jobs. This high level of embeddedness also means that information about the CEO’s decisions is more likely to be obtained by the relevant stakeholders before the official announcement.

In this case, the CEO chooses an accommodative strategy, which is characterized by immediate action driven by both economic rationality and consideration for social responsibility. Officially, the CEO can decline his social responsibility and legitimize his decision to restructure by citing the necessity of responding to the random shock. However, his dependency on others’ resources obliges him to negotiate with his stakeholders. The goal of the negotiations is to obtain compensation for displaced workers and to limit redundancies. From the perspective of complex networks theory, the CEO’s high degree of embeddedness leads him to negotiate with stakeholders to find a solution that addresses their interests and thus bring the cluster back to its initial equilibrium or close to that state. By downizing the organization, a high embedded CEO triggers a conflict that might evolve toward an alliance with the stakeholders of the cluster. His embeddedness, which is related to his dependence on the resources controlled by the stakeholders, prevents him from leaving the cluster and the legitimacy of his decision, which is related to the nature of the external shock, makes cooperative ties possible.

The example of Peugeot-Citroen, the French carmaker, illustrates this type of CEO response. In 2012, the company’s revenues, strongly impacted by the macroeconomic downturn in Europe, decreased by 7% (from €59.9 billion to €55.4 billion) and the firm recorded a €4.6 billion operating loss (compare with a €0.9 billion operating profit of in 2011). To ensure the firm’s survival, the CEO decided to carry out an industrial restructuring and to close less profitable plants. From an economic perspective, the closure of the French plant in Aulnay and the loss of the 2900 jobs in the plant was the most rational response. This plant was one of the firm’s least productive plants.

Mr. Varin, the CEO of Peugeot-Citroen, was both highly personally and professionally embedded in the French cluster of stakeholders who were affected by the restructuring (Table 1). He is a French citizen living in France. He graduated from the top French elite public engineering school (Polytechnique and Ecole des Mines). Out of the 14 members of the Peugeot-Citroen’s Board of Directors, 12 are French citizens and the nine members of the Executive Committee are also French citizens. Out of the 204,287 workers employed by the group, 93,479 work in France (45.7% of the workforce). The company is French and headquartered in Paris. Historically, its major shareholder is French (the Peugeot family). France is the main automotive market for the group (approximately 25% of sales). The French public administrations are an important client and the company benefits from large state subsidies, particularly for its R&D activities.

This embeddedness affected the interactions and dynamic evolution of the network. First, this embeddedness facilitated the circulation of information among stakeholders. In late 2011, an internal document produced by the top management, documenting the closure of the Aulnay plant in 2014, was publicly released to a trade union without the authorization of the corporate leaders. At the beginning of 2012, the Peugeot-Citroen’s CEO publicly denied the planning of this closure. Information relayed by various media reported that the Minister of Labour, at the time Mr. Bertrand, insisted that the company should not announce the industrial restructuring before the presidential elections. However, despite the CEO’s denials, the alleged closure of the Aulnay plant led to major strikes and was the subject of an extensive media coverage.

In July 12, 2012, after the presidential elections, the Peugeot Citroen’s CEO publicly announced the closure of the Aulnay plant in 2014 and the elimination of the 2900 jobs in the plant. From January to May 2013, workers went on a massive strike. However, on May 16, 2013, CGT8 signed an agreement with the firm to end the strike. Seca, a consulting company connected to CGT, was commissioned by the Employee Council of Peugeot-Citroen to draw up a report on the restructuring plan. Seca validated the economic rationality of the closure thus strengthening the economic legitimacy of the CEO’s decision. The agreement signed by the firm and the CGT planned to move 1500 workers to other entities of the firm and to help the others to find another employer in the Aulnay area. The company spent €250 million on this closure, including €110 million in severance packages and outplacement support. Employees who left the company received an average of €60,000 in severance package. Sodie, a human resources consulting firm connected to CGT, was chosen to help displaced employees find new employment in the Aulnay area. Two years later, 1100 workers were still employed within the company, 600 retired and 1200 found a job with another employer. In April 2014, two years after the official announcement, the plant was finally closed.

At the end of 2013, Peugeot-Citroen and the trade unions signed an agreement in which the company committed not to close another plant in France until 2016. In return, employees gave up salary increases and agreed to have more flexible work schedules.

In return for his socially responsible management of the restructuring, the Peugeot-Citroën obtained several forms of compensation from the French government. In 2012, the French state provided a €1.2 billion guarantee (with a possible extension to five billion) to the carmaker’s bank subsidiary. In May 2014, the French state invested 800 million euros in Peugeot-Citroen in order to acquire 14.1% of the company and become a major shareholder. The French government also accepted that Dongfeng Motor Corporation, a Chinese carmaker, acquires of 14.1% of the company. In addition, the government has requested that state-owned companies or those depending on public

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8 Annual report.

7 From January 2011 and December 2013, the closing of the Florange mill was mentioned 271 times in Les Echos and 176 in Le Monde (the two main French newspapers).

8 Confédération Générale du Travail, one of the major French trade unions representing lot of Peugeot-Citroen employees.
procurements recruit laid off employees from Peugeot-Citroën. The CEO’s high degree of embeddedness in the French cluster of stakeholders is due to his personal situation and the firm’s economic dependence on resources held by the other actors within the cluster. This embeddedness renders the CEO more responsive to pressure from stakeholders to take socially responsible actions and save jobs. This network configuration explains the defensive strategy of the CEO who, despite having an economic justification for restructuring, negotiated compensation for a socially responsible restructuring. The high embeddedness of the CEO led him to contribute to the stakeholder’s network’s return to a stable equilibrium that is similar to the initial equilibrium. Finally, considering the CEO’s legitimacy, his high level of embeddedness and, the firm’s dependence on stakeholders’ resources, the conflict induced by the industrial restructuring evolved toward an alliance (strong and cooperative ties) with the national cluster of French stakeholders.

1.4.3. The proactive strategy of the less embedded CEO and an intentional shock

The nature of the systemic shock influences CEO’s political strategy in several ways. When the shock is a result of the CEO’s own actions, the CEO controls the timing and therefore does not need to handle the situation with urgency. Instead, he can choose the most appropriate time to announce an industrial restructuring publicly. For example, even if the company is not affected by an on-going macroeconomic crisis, he might decide to downsize during such a period in order to make his decision more socially acceptable. The public announcement of the layoffs can also be made when employees are less likely to mobilize, for example during the holiday season. The control over timing allows the CEO to act in a proactive manner that increases the legitimacy of his decision. When a firm is profitable, job cuts related to industrial restructuring are considered economically unnecessary and socially irresponsible by several stakeholders. Before the public announcement, the CEO can proactively employ a management consulting firm to articulate an economic justification to the downsizing, contract with a law firm to prepare legal procedures related to the restructuring and engage outplacement firms to assist laid off employees find new jobs.

A low level of CEO embeddedness has several implications for the dynamic evolution of the cluster of stakeholders. First, the CEO’s lack of social ties limits the flow of information and the ability of stakeholders to discover the CEO’s decision before the official announcement. Second, it also means that the company is not dependent on the resources of the cluster affected by the restructuring. Thus, the stakeholders have little bargaining power with which to influence the CEO. Third, it also means that the CEO is less susceptible to social pressure from the stakeholder cluster, so he is therefore less likely to assume his social responsibility. The proactive strategy is an anticipated action on the part of the CEO, which is driven by economic rationality without consideration for social responsibility. Practically, the CEO can focus on organizing layoffs and job search assistance, ultimately with significant severance benefits for the employees, rather than trying to reemploy workers within the company through human resources management planning. From the perspective of complex networks theory, the low level of CEO embeddedness reduces his vulnerability to the economic coercion and the social pressure exerted for him to return the cluster to its initial equilibrium. The system therefore evolves toward another equilibrium without the firm providing jobs in the cluster. By downsizing a profitable organization, the loosely embedded CEO intentionally triggers a conflict with the cluster of stakeholders. The firm’s independence from the resources controlled by the stakeholders and the illegitimacy of the CEO’s decision both push and allow the CEO to break the tie and leave the cluster.

The Merck Group, the American pharmaceutical company, illustrates this configuration. In 2012, the company earned €47.2 billion in revenues (slightly down by 1.6%) and achieved a €8.7 billion dollars operating profit (compare with €7.7 billion in 2011). The high profitability of the firm and the favorable outlook did not justify restructuring. However, the CEO had decided to downsize the firm’s business in France and cut 800 jobs, including closing a factory in the city Ergany-sur-Ept which employed 247 people. The public announcement was made to the firm’s Employee Council on June 30, 2012, on the eve of the holiday season. Employees and unions publicly expressed their surprise at this unexpected announcement. No information had previously been circulated among French stakeholders.

Employees and local trade unions, as well as local politicians and local journalists, promptly mobilized. However, national media barely covered the restructuring, and national politicians did not address the case. The Minister of Industrial affairs, Mr. Montebourg, never publicly commented the situation. The CGT and FO unions of the Merck Employee Council in France, with the support of Syndex (an audit firm politically close to trade unions), sued the firm citing the lack of economic justification for cutting jobs. However, on November 16, 2012, the court has validated the restructuring. In February 2013, less than 8 months after the public announcement, the factory of Ergany-sur-Ept was closed. Out of the 247 employees, 110 retired and the others were laid off. Severance benefits were very generous, and some employees received severance packages worth €200,000 euros. Merck did not organize any internal job reassignment, and the firm no longer belongs to the local economic system.

The CEO’s low level of embeddedness explains his choice of strategy and the dynamic evolution of the stakeholder cluster (Table 1). The CEO of Merck, Mr. Frazier is an American citizen residing in the United States. None of the members of the Board of Directors or the Executive Committee is a French citizen. The company is listed on the US stock exchange. The company is headquartered in the state of New Jersey in the United States. In France, the company only has production sites and very few R&D activities that could benefit from state subsidies. The French market is not a significant market for the company.

The CEO’s low level of embeddedness reduced his vulnerability to economic coercion and social pressure from stakeholders to assume any social responsibility to preserve jobs. Moreover, by controlling the timing he was able to select a moment in which to announce the downsizing that minimized stakeholders’ mobilization. Finally, considering the illegitimacy of the CEO’s decision and the independence of the firm from the stakeholders’ resources, the conflict ended in a broken tie with the national cluster of French stakeholders.

1.4.4. Defensive strategy of the highly embedded CEO and an intentional shock

As in the previous case, the CEO intentionally creates a systemic shock. Similarly, the economic justification for and the social responsibility associated with the decision can legitimately be questioned by stakeholders, especially if the firm is profitable. The CEO’s ability to control the timing is also a resource. It allows him to avoid a situation of urgency and prepare a strategy to handle the stakeholders’ reaction. However, the CEO’s high level of embeddedness within a dense network influences his strategic approach and explains the difference in the dynamic evolution of the cluster. The high level of embeddedness of the CEO results from the fact that the company depends on resources held by other stakeholders within the cluster. The stakeholders therefore have bargaining power with the CEO. Thus, the latter is more vulnerable to the economic coercion that cluster actors can exercise over him. The CEO’s high level of embeddedness also means that the CEO is more susceptible to social pressure exercised by the cluster. The high level of embeddedness facilitates a greater circulation of information within the cluster of stakeholders. Concretely, this means that rumors spread and

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9 From January 2011 and December 2013, the closing of the Eragny-sur-Ept factory was mentioned 2 times in Les Echos and 4 in Le Monde (the two main French newspapers).

10 Force Ouvrière, the third largest French trade union.
information is passed to the media against the will of corporate leaders. The defensive strategy means that the CEO's decisions are initially informed by economic rationality, but his personal and professional embeddedness in the network ultimately force him to take the other stakeholders' interests into account. From the perspective of complex networks theory, the high embeddedness of the CEO means that after the shock the cluster returns to its initial equilibrium with the firm holding a similar function and providing jobs in the local economy. By downsizing the organization, a highly embedded CEO triggers a conflict that might evolve toward a status quo with the stakeholders of the cluster. His dependence on the resources controlled by the stakeholders prevent him from leaving the cluster. The illegitimacy of his decision, due to the intentionality of the shock, prevent a cooperative relationships and foster competitive ties.

Sanofi, the French pharmaceutical company, illustrates the defensive strategy. In 2012, the firm's revenues were €34.9 billion (up 4.8% from 2011) and it made €6.3 billion in operating profits (compare with €5.7 billion in 2011). Despite this high profitability, in July, during the holiday season and after the presidential elections, the CEO of the company, Mr. Viehbacher, announced that he would restructure the French entity to reorganize research, vaccine production and support functions. The goal was to save €2 billion over three years by reducing operating expenses. It would have been the first time in the firm's history that the French R&D activities would be downsized. The restructuring project included closing the Toulouse research center that employed nearly 650 people. To justify its decision, the CEO put forward the poor results of the internal R&D (at that time, out of 18 new drugs in development, only 3 were developed internally), his strategy of acquiring startups to obtain new drugs and the need to rationalize the organization after numerous acquisitions.

In July 2012, the CEO did not officially give any specific numbers on the projected redundancies. However, CFDT (trade union) publicly declared that between 1200 and 2500 jobs were threatened, and FO publicly cite a range from 2000 to 2500 jobs. The employees and unions mobilized against the restructuring and especially against the closure of the Toulouse site. In addition to organizing strikes and demonstrations, they also involved the mayor of Toulouse, the president of the Midi-Pyrénées region and the Regional Commissioner for Industrial Affairs. The mobilization of employees therefore also included local and national politicians. The project of closing of the Toulouse site was highly publicized by media.11 In early July, Mr. Viehbacher was summoned to Paris by Mr. Montebourg, French Minister of Industrial Affairs. Meanwhile, the trade unions (CFDT, CGT, FO, CGC,12 CFTC13), supported by the Employee Council of Sanofi, contested the economic justification of the closure and handed the Minister of Industrial Affairs a report written by experts from Syndex concluding that “given the economic and financial situation of the group and its prospects, it is perfectly possible to keep the entire R&D activities of Sanofi, particularly its French entities.”

On September 25, 2012, the Sanofi CEO publicly announced a restructuring project that aimed to remove “900 positions” in France between 2012 and 2015. The job cuts were supposed to be done through “retirement arrangements and internal geographical or professional mobility in France” and that “no offshoring or change in the number of industrial sites in France was planned”. After this public announcement, the Minister of Industrial Affairs, Mr. Montebourg, publicly stated that Sanofi had “followed the recommendations of the government” and he “had asked to the CEO of Sanofi to further reduce his plan to cut 1371 jobs and to carry out an exemplary social dialogue with the Employee Council”.

On October 15, 2013, the Sanofi CEO presented a new restructuring project to the Employee Council. It planned to cut only 187 positions in the company. Moreover, the firm promised not to fire any employee and to maintain 364 of the 617 positions in Toulouse site (184 jobs being transferred to other sites and 63 phased out). Finally, the restructuring project that planned to eliminate between 1200 and 2500 jobs in July 2012, ultimately did not lead to any firing and the Toulouse site was maintained.

The evolution of the restructuring plan can be explained by the CEO's high level of embeddedness in the cluster of stakeholders (Table 1). In 2008, when Mr. Viehbacher was appointed CEO of Sanofi, he appeared to be less embedded in the French cluster of stakeholders than his predecessor, which may explain his initial decision to cut jobs in France. He is a German-Canadian citizen, he was not educated in France, and he had very little work experience in this country. If his level of personal connections in French social networks was low, he was highly embedded in French professional networks. Sanofi is a French company, created in 1973 with the strong support of the French government and headquartered in France. The company has 26 production sites and 9 R&D centers in France. The company is listed on the Paris stock exchange. 8% of its revenues are generated in France. 28,179 of its 113,719 employees (24.8% of the workforce), including the 5000 member workforce in R&D are located in France. The firm benefits from public subsidies to support its R&D activities and depends on the French administration to get its drugs approved for public reimbursement. The chairman of the board is French, and 11 of the 16 members of the Board of Directors are French citizens. Similarly, out of the 20 members of the Executive Committee, 15 are French citizens.14

This high level of embeddedness resulted in significant economic coercion and strong social pressure on Mr. Viehbacher to reconsider his industrial restructuring project and assume his social responsibility to maintain jobs in France. In late October 2014, he was fired by the Board of Directors and replaced at the head of Sanofi by Mr. Brandicourt (a French citizen). This dismissal was a result of the multiple conflicts that occurred between the CEO and many stakeholders that were affected by the industrial restructuring and job cuts. The workers who were in danger of losing their jobs were able to mobilize the journalists, the local and national politicians, the government, the courts and the Board of Directors against the decision of the CEO. The departure of Mr. Viehbacher allowed the cluster of stakeholders to return to a stable situation, similar to the initial equilibrium, in which most jobs were maintained. Finally, considering the illegitimacy of the CEO's decision and the firm's great dependence on stakeholder resources, the conflict induced by the industrial restructuring evolved toward a status quo with the national cluster of French stakeholders.

2. Conclusion

The purpose of this article is to provide a theoretical model to analyze the political strategy of CEOs by combining stakeholder theory and social network analysis. The model uses the degree of the CEO embeddedness in the network of stakeholders and the nature of the systemic shock that destabilizes this network to explain the CEO's strategic business decisions with respect to industrial restructuring. We refine the ST conceptual model by incorporating the influence of the CEO's professional and personal embeddedness in the network of stakeholders affected by his or her business decision and the nature of the systemic shock impacting the network. We contend that the degree of embeddedness determines the strength of economic coercion and social pressure that stakeholders can exert on the corporate leader to influence his or her business decision. The nature of the shock defines the degree of urgency of the situation and the legitimacy of the CEO's business decision. When the firm faces a random external shock (macroeconomic crisis, war, natural disaster, etc.), the CEO must act with urgency. In these situations, radical business decisions that save

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11 From January 2011 and December 2013, the closing of the Toulouse site factory was mentioned 45 times in Les Echos and 33 in Le Monde (the two main French newspapers).
12 Confédération Générale des Cadres.
13 Confédération Française des Travailleurs Chrétiens.
14 Annual reports.
the firm are seen as legitimate, even if these decisions harm stakeholders’ interests. Conversely, when the CEO intentionally imposes a shock, he or she controls the timing of the public announcement and can prepare it. However, without economic justification business decisions that harm stakeholders’ interests may appear illegitimate and socially irresponsible. The combination of the two dimensions: degree of embeddedness and nature of the shock constitute a conceptual model that describes four political strategies that a CEO may deploy to manage stakeholders.

The whole network structure depends on interpersonal ties. Ties between actors vary in strength from weak to strong. They also vary in nature from cooperative when interests between actors converge to competitive when interests diverge. Transitivity of strong ties contributes to creating dense networks. The network analysis argues that a network can vary in terms of density and that a CEO can be embedded in the network to different degrees. Structures of networks vary from high to low density. Dense networks (cliques) might be loosely connected (Burt, 1997). The “new” science of network (Watts, 2004) highlights that some large networks fit with a “small world” structure. Such networks are made of dense clusters of actors connected by strong ties, and the clusters are connected to one another by a limited number of weak ties (Watts and Strogatz, 1998). Kogut and Walker (2001) mobilize the “small world” structure to analyze the business networks of large companies in Germany. They find that German firms are highly embedded in dense national network of stakeholders and loosely connected with foreign clusters. The analysis of the small world of corporate governance in Germany has been extended to several other countries such as Italy, the US, Japan or Scandinavia (Kogut, 2012). From an individual perspective, an actor might be highly embedded in some clusters and loosely in others. In the business world, that means a CEO is highly embedded in his domestic cluster of stakeholders and less embedded in foreign clusters. The degree of embeddedness shapes access to resources and business opportunities. It also shapes susceptibility to the social pressure from stakeholders to respect to collective norms of the cluster. A highly embedded CEO get a privileged access to resources when his interests converge with stakeholders’ interests and also receives social support from them. This embeddedness appears to be a constraint when interests diverge. The stakeholders might coerce the CEO by threatening to withdraw their resources and by exercising social pressure if the CEO behavior is deemed illegitimate or in violation of the collective norms of the cluster.

The strategic decision of the corporate leader can create a systemic shock in a network that, based on stakeholders’ interests and bargaining resources, prompts cooperation or competition between the stakeholders. Theory of social networks suggests that the stakeholder’s influence on the CEO is related to the stakeholder’s ability to create or activate ties with other stakeholders to build coalitions against the CEO. Similarly, the ability of the CEO to resist to economic coercion and social pressure depends on his degree of embeddedness in the network of stakeholders. By destabilizing weak/strong and converging/diverging ties, a systemic shock triggers a conflict that induces instability and movement toward stable cooperative routine, status quo or alliance relationships between the CEO and his stakeholders. It can also end in a broken tie. Low embeddedness and legitimacy tend to lead to cooperative routine ties resulting from a reactive strategy. Low embeddedness and illegitimacy tend to lead the CEO deploying a proactive strategy and, ultimately, broken ties. High embeddedness and legitimacy lead to alliance ties through a CEO’s accommodative strategy. High embeddedness and illegitimacy tend to result in a status quo resulting from a CEO’s defensive strategy.

Since any individual employee has very limited bargaining power, understanding the network structure in which the employment relationship is embedded is critical to understanding the implementation of an industrial restructurings. Collectively, employees can ultimately block production activities through strikes. However, the critical factor in the dynamic response of the stakeholder network to a shock is the ability of employees to involve other stakeholders (other employees, unions, government, journalists, politicians, customers, etc.) in persuading the employer to restore equilibrium. This network perspective explains why employees affected by downsizing sequester corporate leaders, start hunger strikes and carry out actions to boycott company’s products. The purpose of such actions is to involve journalists, mobilize public opinion (voters and customers) and enlist the aid of local or national politicians who might have the power to influence the CEO. Ultimately, the susceptibility of the CEO to both economic coercion and social pressure depends on his degree of embeddedness in the stakeholder cluster.

This article aims to build a conceptual model that explains the strategy of CEOs dealing with stakeholders. It contributes to ST by introducing concepts from network analysis and the complex networks theory. Complex network theory has been primarily used in scientific fields such as physics, biology, or computer science (Jen, 2006) and might offer valuable insights to the social sciences. This paper makes a theoretical contribution by using network analysis to analyze stakeholders’ interactions. Applying complex network theory to explore the dynamics of stakeholder networks marks a conceptual innovation that may inform further research on industrial relations.

However, this article suffers from several limitations that provide opportunities for further research. From a theoretical point of view, a shortcut has been taken by assuming that the domestic economy is a dense network (a cluster or a clique). However, the network structure of local economy, which influences economic outcomes and the cooperation of stakeholders, may vary from sparse to dense. In addition to CEO embeddedness, future research may explore how the network structure influences the strategy of a CEO who has initiated a restructuring plan in response to an exogenous shock or due to the firm’s internal business considerations. Based on the theory that the network of stakeholders is a dense network (“a small world”) research could explore the extent to which network density, beyond the degree of CEO embeddedness, influences political strategies. Such an approach might build on the extensive literature on network density (Carrington and Scott, 2011) and consider the large number of stakeholders involved in employment relations in multinational companies. Furthermore, the intensity of the shock could also be introduced into the model since the dynamics of the network of stakeholders might depend on the shock intensity.

This theoretical model is illustrated by four examples of industrial restructurings decided in France in 2012 in the middle of an economic crisis and a presidential election. This is a very specific context that limits the generalizability of these findings. The lack of systematic evidence creates an opportunity for other scholars to test the proposition that the nature of systemic shock and the degree of the CEO’s embeddedness influences the CEO’s response to stakeholders’ claims. The frequency of industrial restructuring makes it plausible to build a database that would allow for statistical tests and provide the ability to control for other variables that may influence the CEO’s political strategy (shareholding leader, industry, country, macroeconomic context, etc.).

Another empirical opportunity is to explore the impact of other kind of systemic shocks on clusters of stakeholders and CEO’s corporate political strategy. For instance, an acquisition, a disruptive innovation or, an implementation abroad might be both, a random shock suffered by the focal firm or, an intentional shock provoked by its CEO. How the CEO’s embeddedness and the nature of the shock influences the stakeholders’ reactions and the corporate political strategy could be explored in future research.

References


Albert, R., Jeong, H., Barabasi, A.L., 2000. Error and attack tolerance of complex...