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Complex networks of stakeholders and corporate political strategy

Michel Ferrary

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Abstract. This article makes a theoretical contribution by applying two concepts from complex network theory to stakeholder management and corporate political strategy: systemic shocks and small-world networks. Shocks may be random or intentionally caused by a firm. The nature of a shock determines the urgency of the situation faced by a firm and the legitimacy of managerial decisions. A small-world network is a set of dense clusters loosely connected with one another. This study characterizes the structure of the stakeholders' network in which the firm is embedded. A firm may be highly or loosely embedded in a given cluster. Embeddedness relates both to the firm's resource dependence and its quest for legitimacy. Combining the nature of the shock and the degree of embeddedness offers a conceptual framework to explore corporate political strategy aimed at managing stakeholders. When a firm that is loosely embedded in a cluster of stakeholders faces a random shock, it chooses a reactive corporate political strategy. A firm that is highly embedded in a cluster and facing a random shock favours an accommodative corporate political strategy. A firm loosely embedded in a cluster in which it intentionally causes a shock chooses a proactive corporate political strategy. A firm highly embedded in a cluster in which it intentionally provokes a shock adopts a defensive corporate political strategy. Four examples of industrial downsizing understood as systemic shocks illustrate this conceptual framework.

Keywords: stakeholder theory, corporate political strategy, complex network theory, industrial downsizing

Michel Ferrary
University of Geneva
Graduate School of Economics and Management
and
Skema Business School
Switzerland
michel.ferrary@unige.ch

INTRODUCTION

Since Freeman (1984), stakeholder theory has explored how actors or groups of actors may either influence or be impacted by a firm's behaviour. This perspective emphasizes that in addition to an economic responsibility to shareholders, firms may have social responsibilities to a variety of other stakeholders, such as employees, customers, policy makers, and politicians (Freeman Harrison, Wicks, Parmar & De Colle, 2010; Miles, 2015). Stakeholder theory contributes to the field of strategic management by highlighting that managerial decisions may elicit reactions from various stakeholders (Cordeiro & Tewari, 2015). When stakeholders act strategically to change firm behaviour (Frooman, 1999), firms respond with a corporate political strategy to manage these stakeholders (Oliver, 1991).

A stakeholder's ability to pressure corporate leaders depends on the potential dependency of the firm on the resources controlled by the stakeholder, the legitimacy of the stakeholder's claims, and the urgency of the situation (Mitchell, Agle & Wood, 1997). To manage stakeholders, firms tend to develop a corporate political strategy based on the stakeholder's

ability to exert influence (Bonardi & Keim, 2005; Hadani & Schuler, 2013). Four corporate political strategies are well established in the literature: reactive, defensive, accommodative and proactive (Carroll, 1979; Choi, Jia & Lu, 2014; Harrison & Wicks, 2013; Oliver & Holzinger, 2008).

Despite having made many contributions to the literature, stakeholder theory has several limitations. First, this theory describes interactions between the firm and its stakeholders but fails to provide a conceptual framework to explain which situations ought to trigger more intense interactions between a firm and its stakeholders and justify a corporate political strategy (King, 2008). Second, the relationships between a firm and the various stakeholders are mainly thought of as a set of bilateral relationships characterized by a hub-and-spoke system centred on the firm (Freeman, 1984). Some scholars suggest that both a firm and a claiming actor are embedded within the same network of stakeholders and multilateral relations which affect their bilateral relationships (Bergström & Diedrich, 2011; Driscoll & Starik, 2004; Ferrary, 2009; Rowley, 1997).

These limitations represent a gap in the literature and raise two key research questions: What triggers, intensifies and reduces interactions between a firm and the network of stakeholders? How does the embeddedness of a firm in a network of stakeholders with multilateral interactions influence the firm's behaviour and its choice of corporate political strategy?

To address these questions, I mobilize the "new science of networks" (Watts, 2004) by articulating stakeholder theory with complex network theory. I borrow two concepts from complex network theory to enrich stakeholder theory: (1) "systemic shock" (Jen, 2003), which is used to explore what triggers interactions between a firm and its stakeholders and (2) "small world network" (Watts & Strogatz, 1998), employed to analyse how firm embeddedness in a small-world network of stakeholders affects the firm's behaviour.

Complex network theory defines a network as a stable system subject to systemic shocks that destabilize the whole system and prompt its components to interact in order to return to equilibrium (Barabasi, Newman & Watts, 2006). Systemic shocks can be random or intentionally caused by a component of the network (Jen, 2003). In terms of stakeholder theory, a firm might either experience a shock as a result of external circumstances (seemingly at random) or might intentionally create such a shock which triggers interactions with stakeholders. The nature of the shock contributes to both its legitimacy and urgency.

A major finding from studies of complex network theory is that real-world networks are not random networks or regular networks. Rather, these networks take on a structure that is referred to as "small-world networks" (Barabasi et al, 2006; Jen, 2006; Watts, 2004). A small-world network is a set of dense clusters that are loosely connected with each other (Watts & Strogatz, 1998). In such networks, the same node may be highly embedded in one cluster and loosely embedded in another one. Extending this concept to stakeholder theory means that a firm may be highly embedded in one cluster of stakeholders and loosely in another one. The degree of embeddedness relates to resource dependence and the quest for legitimacy.

This article makes a theoretical contribution to stakeholder theory by applying complex network theory to stakeholder management. To implement this theoretical approach, first, I begin by assuming that systemic shocks (random or intentional) and firm embeddedness (low or high) affect resource dependence, legitimacy and urgency; second, I assume that these factors shape corporate political strategy. I propose the

following: a loosely embedded firm facing a random shock chooses a reactive corporate political strategy; a highly embedded firm facing a random shock favours an accommodative political strategy; a loosely embedded firm which intentionally causes a shock will choose a proactive corporate political strategy; and a highly embedded firm which intentionally causes a shock will adopt a defensive corporate political strategy.

To illustrate the conceptual framework, I mobilize four industrial restructuring cases which created numerous redundancies and which were introduced in 2012 in France by four multinational companies. Restructuring and massive layoffs represent a major systemic shock to a cluster of stakeholders. Such a shock may be random or intentional, and the firm may be somewhat embedded in the affected cluster.

First, I introduce stakeholder theory and present the way in which resource dependence, legitimacy and urgency render a stakeholder salient to the firm. I also introduce the four established corporate political strategies: reactive, accommodative, proactive and defensive. Then, I introduce two concepts from complex network theory – systemic shocks and the small-world network structure – to explore how these concepts influence the three dimensions of stakeholder salience. Next, I build a conceptual framework in which the nature of shocks and the degree of embeddedness are used in combination to predict the corporate political strategy. I illustrate the conceptual model with four examples of industrial restructurings. Finally, I conclude by highlighting the contributions of this work and by discussing the study's limitations and opportunities for further research.

STAKEHOLDER THEORY AND SOCIAL NETWORK ANALYSIS

STAKEHOLDER THEORY

Stakeholder theory sees shareholders as the main stakeholder group (Agle, Mitchell & Sonnenfeld, 1999). The shareholders appoint corporate leaders to run a firm and to maximize share value. Business corporations have a legal mandate to seek profit above all else (King, 2008). However, stakeholder theory highlights that firms also interact with other economic actors (e.g. competitors, customers, workers and suppliers) and political actors (e.g. government, citizens, communities, politicians and media). A managerial decision aimed at increasing share value may trigger other stakeholders' reactions that ultimately harm the firm's competitiveness (Flammer & Kacperczyk, 2016). For these reasons, stakeholder theory is largely about managing the potential conflict stemming from divergent interests (Barnett, 2014; Donaldson & Preston, 1995; Harrison & Wicks, 2013).

For corporate leaders, the primary issue concerns the identification of the firm's stakeholders and quantifying their potential influence. Mitchell et al. (1997) contribute to stakeholder theory by defining the three factors that determine a stakeholder's ability to influence a firm's decision: resource dependence, legitimacy and urgency.

Firm's resource dependence. To become a stakeholder, actors must contribute resources that are important to the firm (such as labour, money and loyalty). Frooman (1999) elaborates on Mitchell et al.'s (1997) definition by arguing that resource dependence exists when one actor supplies another with a resource that is marked by (1) a concentration of suppliers, (2) controllability, (3) non-mobility, (4) non-substitutability, or (5)

essentiality. To force a firm to satisfy a claim, a stakeholder can either withdraw an essential resource or attach conditions to its continued supply.

However, resource dependence is not unilateral. Stakeholders might also depend on a firm's resources. Frooman (1999) characterizes firm–stakeholder interactions in terms of a mutual dependence, a unilateral dependence or a lack of dependence. The degree of interdependence between a firm and an antagonistic stakeholder determines the nature of their relationship.

Stakeholder legitimacy is defined as behaviour that is socially accepted and socially expected by others. Hill and Jones (1992:138) define legitimacy as a "generalized perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed system of norms, values, beliefs, and definitions". Mitchell et al. (1997) propose that legitimate stakeholders are more likely to elicit positive responses from firms. Legitimacy can conflict with both organizational effectiveness and the maximization of share value (Driscoll & Starik, 2004).

Urgency of the situation. Mitchell et al. (1997:867) define urgency as "the degree to which stakeholder claims call for immediate attention". Urgency depends on time sensitivity (the degree to which managerial delay is unacceptable to the stakeholder) and criticality (the importance of the claim to the stakeholder). Urgency is, by definition, a contextual characteristic.

For Mitchell et al. (1997), a stakeholder's ability to change a firm's behaviour and the likelihood that a firm responds positively to its claim depend on these three factors. The salience of the stakeholder's claims is *low* if none or only one of the three attributes is present, *moderate* if two attributes are present, and *high* if all three attributes are present.

The three attributes are not intrinsic and permanent features of actors but emerge from the situation. Interactions between actors are not structurally determined or continuous but contextual. Interactions arise due to a specific issue or event that emphasizes resource dependence (Frooman, 2010; Rowley, 1997). A stakeholder is not intrinsically legitimate; rather, a stakeholder's action or request may or may not be legitimate (Eesley & Lenox, 2006). For instance, King (2008) points out that certain contexts create greater opportunities for activists to influence a firm and to contest its legitimacy. Similarly, firms and stakeholders are not always facing urgent situations; therefore, they may not interact during periods of routine business operations.

According to the contextual perspective, one needs to first characterize the situation in order to define the actors' abilities to influence one other. *In a given context*, a claiming stakeholder may (or may not) own critical resources, may (or may not) present a legitimate request and may (or may not) experience a sense of urgency. The same is true for a firm. The claiming stakeholder may (or may not) depend on the firm's resources, a firm's decision may (or may not) be seen as legitimate, and a firm may (or may not) face urgency.

CORPORATE POLITICAL STRATEGY

In a conflict between a firm and a claiming stakeholder, each of them adopts a political strategy which depends on their capacity to influence each other. A firm deploys a corporate political strategy to deal with more salient stakeholders (Bonardi & Keim, 2005; Frooman, 1999; Hadani & Schuler, 2013; Oliver, 1991). A corporate political strategy is defined as the

activities of a firm outside the market, which contribute to creating value and preserving its competitive advantage. Lobbying, contributing to political parties and professional organizations, creating alliances with non-governmental organizations or recruiting civil servants are examples of actions aimed at managing stakeholders (Oliver & Holzinger, 2008).

Four corporate political strategies are usually identified in the field of stakeholder theory (Carroll, 1979; Choi et al, 2014; Frooman, 2010; Oliver & Holzinger, 2008). The strategies are referred to collectively as the RDAP model (reactive, defensive, accommodative, proactive). Resource dependence and legitimacy are critical for explaining which political strategy is selected to manage a claiming stakeholder:

The reactive corporate political strategy is an openly confrontational approach. A firm pursuing a reactive strategy either intentionally ends its relationships with the claiming stakeholder or deliberately ignores the stakeholder's interests (Oliver & Holzinger, 2008). In this case, the firm does not depend on the resources that the stakeholder controls and is unconcerned with perceptions of legitimacy. The firm adjusts its structure and makes decisions to promote short-term shareholder interests. The firm does not consider its corporate social responsibility. Due to its low level of dependence on the stakeholder's resources, the firm does not need to be responsive to that stakeholder (Frooman, 1999).

The defensive corporate political strategy is also confrontational but fulfils the minimal legal obligations to the claiming stakeholder. A firm following a defensive strategy seeks to comply with the regulatory framework. The firm reluctantly considers the stakeholder's claims and compromises (Oliver & Holzinger, 2008). The firm may be forced to negotiate due to its dependence on the stakeholder's resources. The firm also considers the impact of its business decision on its reputation and legitimacy to the extent that the decision impacts the firm's profitability.

The accommodative corporate political strategy is characterized by the voluntary bargaining discussions that a firm initiates to find a compromise between conflicting interests. The firm constructively considers the stakeholder's claims and acquiesces to the stakeholder's requests (Carroll, 1979). Such a strategy is used when there is a level of interdependence between the firm and the stakeholder. To avoid mutual disaster, both actors negotiate in order to find a mutually acceptable solution (Frooman, 1999). The firm may also pursue socially legitimate actions to signal that it takes corporate social responsibility into account. In this case, the firm actively complies with public policies or regulations with the intent of deriving as much value from compliance as possible. The compliance may confer social legitimacy on the firm, increase consumer approval and product demand, enhance the firm's access to resources or foster more favourable relations with policy makers in the future (Oliver & Holzinger, 2008).

The proactive corporate political strategy anticipates the stakeholder claims that will result from the managerial decision. In this case, the firm tries not to be caught off-guard by its stakeholders and studies the stakeholder environment before making decisions (Frooman, 2010). In this instance, the firm actively engages with the political environment before publicly announcing a managerial decision. The firm anticipates the stakeholders' response and attempts to neutralize these claims (Oliver & Holzinger, 2008). Corporate leaders seek to find a compromise with stakeholders or pre-emptively weaken claiming stakeholders before the public announcement. In this case, the firm does not depend on the stakeholders' resources but cares instead about its

reputation. Thus, the firm proactively considers its social responsibility as it designs a corporate political strategy to manage stakeholders.

Even if resource dependency and legitimacy are key drivers of the firm's corporate political strategy, this typology does not predict or even fully explain why a firm engages in a particular corporate political strategy in the first place. Applying complex network theory to stakeholder theory contributes to an explanation, which I propose below, for these difficulties.

NETWORK ANALYSIS OF A FIRM'S STAKEHOLDERS

Some scholars of stakeholder theory suggest that a firm and a claiming actor are both embedded within the same network of stakeholders and multilateral relations (Bergström & Diedrich, 2011; Driscoll & Starik, 2004; Ferrary, 2009; Rowley, 1997). These scholars suggest that stakeholders can increase their influence by building coalitions and that otherwise powerless stakeholders may try to mobilize powerful actors to pressure a firm on their behalf (Frooman, 1999). Therefore, an actor's influence may arise from relationships with others who compel the firm to act in the actor's interest to an extent greater than that due to the actor's direct influence. For instance, activists are often stakeholders without real power over firms; therefore, mobilizing other actors (the media, customers, employees, regulators and shareholders) is a central component of their strategy (Eesley & Lenox, 2006; King, 2008).

Rowley (1997) pioneered the articulation of network analysis with stakeholder theory to show that influence is not an intrinsic characteristic of stakeholders but a contextual one related to the structure of the relationships in which a firm is embedded. He points out that firms do not simply respond to each stakeholder individually. Firms respond to multiple influences from the entire set of stakeholders in a certain environment. Thus, explaining how organizations respond to their stakeholders requires examining the complex array of interdependent relationships that constitute the stakeholder network.

Although this scholarship furthers stakeholder theory, it relies on an "old" framework of network analysis (i.e. Burt, 1987; Granovetter, 1973, 1985). Recent developments in "complex network theory" or "new science of network" (Watts, 2004), might have valuable applications to stakeholder theory.

COMPLEX NETWORK THEORY AND STAKEHOLDER ANALYSIS

Complex network theory may contribute two concepts to analysing stakeholder networks and firm behaviour. First, complex network theory offers a dynamic perspective which understands networks as "stable" systems of components that interact intensively when destabilized by a systemic shock (Jen, 2003; Newman, 2003). Such shocks might be random or intentional (Jen, 2006). They may trigger interactions between a firm and its stakeholders. Second, complex network theory introduces a new understanding of the structure of real-world networks. Complex network theory highlights that real-world network structures are not random or regular but, rather, have a small-world structure characterized by dense clusters loosely connected with each other (Dodds, Muhamad & Watts, 2003; Watts & Strogatz, 1998). In this perspective, a firm might be highly or loosely embedded within a given cluster of stakeholders. The combination of the nature of the systemic shock and the degree of embeddedness supports the design of a conceptual framework to answer the two research

questions proposed above: What triggers and intensifies interactions between a firm and its stakeholders? How does firm embeddedness in a network of stakeholders influence firm behaviour and the firm's choice of a corporate political strategy?

SYSTEMIC SHOCKS AND FIRM BEHAVIOUR

As a systemic perspective, complex network theory understands networks as systems of components which interact to collectively perform a specific function (Barabasi et al., 2006). A network is a stable system when there is a balance between the components' competing interests and resources (Jen, 2003; Watts, 2004). In a stable system, interactions between actors are routine and characterized by low intensity (Jen, 2006).

Extending complex network theory to analyse stakeholders implies that the function of a network of stakeholders is to create and share value between interdependent actors. A network of stakeholders is usually in stable equilibrium characterized either by cooperative routines, competition or active alliances. Network stability results from balancing stakeholder interests, resource dependence between actors and the legitimacy of the stakeholders' behaviour (Ferrary, 2019).

Stable networks occasionally face systemic shocks that destabilize the equilibrium (Jen, 2003; Watts, 2004). A systemic shock increases the interactions between the components of the network as they seek to regain equilibrium (Jen, 2006). The system stabilizes as a configuration that may be similar to or different from the original arrangement (Callaway, Newman, Strogatz & Watts, 2000).

Analysing stakeholder networks by using concepts from complex network theory emphasizes that networks are occasionally subject to shocks which destabilize the balance between the stakeholders' interests and intensify interactions as actors seek to re-establish an equilibrium.

Complex network theory differentiates random systemic shocks from intentional systemic shocks (Jen, 2006). A firm may respond to a random shock or may intentionally cause a shock.

Random systemic shocks

Stakeholder networks may be subject to random shocks which affect business performance. Natural disasters, wars, industrial accidents or macroeconomic crises are examples of random shocks which could potentially jeopardize the very existence of a firm (Albert, Jeong & Barabási, 2000). A random shock may result in significant financial losses that necessitate a reaction on the part of the firm to restore its profitability (e.g. downsizing the organization and cutting jobs). In this case, a firm reacts to a random shock experienced by the stakeholder network, and its decision may ripple throughout the system.

The randomness of the shock implies that the firm does not control the timing and faces an urgent situation. Since shocks of this type endanger the existence of the firm, managerial decisions are seen as more legitimate; in this situation, the decisions are perceived as necessary to ensure the survival of the organization. Therefore, outside stakeholders may have difficulty legitimately withdrawing resources and exerting their influence over the management of the firm. In other words, random shocks induce urgency and support the firm's legitimacy.

Intentional systemic shocks

Alternatively, a firm can intentionally cause a systemic shock in a network of stakeholders and set off interactions (Willinger & Doyle, 2006). A managerial decision may create a shock which destabilizes the balance of the stakeholders' interests. An acquisition, an innovation and a restructuring are examples of intentional shocks. For instance, even if a firm is profitable, in an effort to increase profits, it may decide to close a factory in order to relocate to a country where labour costs are lower. The profitability of the firm renders a managerial decision to cut jobs illegitimate in the eyes of many stakeholders. Therefore, stakeholders may be seen as acting legitimately when they attempt to influence the firm's behaviour. Since the firm intentionally originates the shock, it controls the shock's timing and does not face an urgent situation; however, the firm's actions might appear illegitimate to many stakeholders.

SMALL-WORLD STRUCTURE OF STAKEHOLDER NETWORKS

The network structure of "small worlds"

Watts and Strogatz (1998) gave a mathematical definition and graphical representation of small-world networks. Such networks are structured into dense clusters that are loosely connected with each other (Figure 1). A small-world network is characterized by a large number of components with a sparse, decentralized and highly clustered structure (Watts, 2004). Complex network theory scholars argue that real-world networks are not regular or random but actually have a small-world structure (Barabasi et al., 2006).

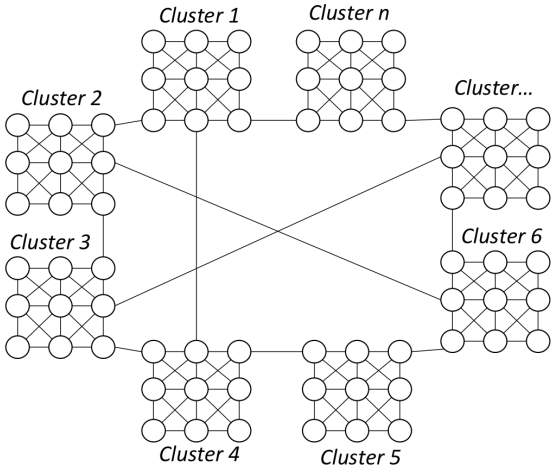

Figure 1 . Structure of "small-world" networks

Several scholars point out that business environments are also small-world networks. Kogut and Walker (2001) demonstrate that, despite globalization, the German national system of governance forms a close-knit cluster of stakeholders which is loosely connected to other national systems of governance. Corrado and Zollo (2006) reach the same conclusion for Italy. Davis, Yoo and Baker (2003) make similar observations in their study of boards of directors in the US, as do Fleming,

King and Juda (2007) in their examination of the small world of innovation in Silicon Valley and Boston. In addition, Kogut (2012) concludes that the small-world structure is widely spread in the economic sphere of corporate governance.

Applying the small-world network perspective to networks of stakeholders requires an explanation of how a group of stakeholders gathers into a cluster and why other stakeholders remain loosely connected to it.

Conditions of stakeholder clustering: common interests and geographic proximity

Two factors contribute to creating clusters of stakeholders: common interests and geographic proximity. Common interests and interdependence between actors influence the strength of their ties and the creation of clusters (Granovetter, 2005). When actors share interests, they interact more, they have stronger ties and, as a result, the network of stakeholders becomes denser. The transitivity of strong ties increases the density of clusters (Granovetter, 1973). Conversely, as actors with few common interests have less reason to interact, ties between these actors are weak or absent (Wry, Cobb & Aldrich, 2013). For these reasons, interdependent actors who share interests tend to agglomerate in the same location to improve their ability to coordinate.

Geographic proximity itself further contributes to network density by reducing the costs of socialization and by facilitating interactions between individuals (Ferrary & Granovetter, 2009). Building on regional studies, geographic proximity is defined by the spatial distance that separates two units (e.g. individuals, organizations and towns). This proximity is known to impose a constraint on the actors' actions (Torre & Rallet, 2005). Within the same geographic area, business leaders, employees, trade unionists, politicians, public authorities and journalists share common interests as members of the same dense social network. For this reason, Driscoll and Starik (2004) note that geographic proximity contributes to "stakeholderness".

These two dimensions (shared interests and geographical proximity) interact to shape the processes through which stakeholders form clusters. Shared interests motivate actors to agglomerate in order to interact, and geographic proximity facilitates interactions. Stakeholders may come together in certain locations to facilitate interactions which, in turn, create dense networks, such as industrial districts, innovation milieus or localized systems of production (Delgado, Porter & Stern, 2014; Wang, Madhok & Xiao, 2014). This effect explains why real-world networks of stakeholders may be structured as small-world networks in which clusters are based on domestic geography.

Consequences of the small-world structure on resource dependency and the quest for legitimacy

Social network theory highlights the importance of social ties in coordinating economic actors and the influence of individuals' embeddedness on their behaviour (Granovetter 1985, 2005, 2017). A small-world network consists of loosely connected, locally based clusters of stakeholders with shared interests and, depending on whether an actor belongs to a given cluster, allows for different mechanisms. Network density shapes the flow of information, the stakeholders' access to resources, the emergence of social norms which define what is legitimate

and the social pressure on stakeholders to comply with these social norms (Granovetter, 2005, 2017).

Within dense social networks or clusters, information circulates quickly, stakeholders are economically interdependent and strong collective social norms emerge from interactions. Through extensive ties, actors form patterns of exchange and produce shared behavioural expectations. Actors in the same cluster imitate one another's behaviours in an attempt to be perceived as legitimate players (Rowley, 1997). Moreover, densely connected networks impose strong constraints on the members' behaviours. The network structure of a cluster therefore creates a mechanism through which members monitor one another by combining economic coercion and social pressure.

Resource dependence relates to the economic dimension of embeddedness. As an organization, the firm largely depends on resources owned by stakeholders. The more that the firm depends on stakeholders' resources, the more it is embedded and may become subjected to economic coercion from these stakeholders.

Legitimacy comes from the social dimension of embeddedness. A firm may want to follow collective norms by behaving legitimately. The firm's sensitivity to the social pressure to follow collective norms depends on its level of embeddedness in the cluster of stakeholders which produces these norms. The more embedded a firm is, the more sensitive it will be to social pressure to behave legitimately.

Usually, a high level of embeddedness is understood as an advantage for the firm, since this position gives the firm access to specific and tacit knowledge, resources and opportunities (Owen-Smith & Powell, 2004). However, some scholars note that over-embeddedness may hamper firm performance. Uzzi (1996) argues that over-embeddedness creates a high level of dependence on the network for resources and opportunities. Over-embedded actors may also experience feelings of obligation and friendship which induce economically irrational behaviour (Uzzi, 1997). Consequently, by affecting resource dependency and the quest for legitimacy, embeddedness may have positive effects when the actors' interests converge but negative effects when their interests diverge.

Impact of embeddedness on firm behaviour

In a small-world network, a firm may occupy two distinct structural positions (Figure 2). The firm can be highly embedded in one cluster of stakeholders and loosely connected to another. A firm highly embedded in a fully connected cluster of N stakeholders has N-1 ties with the other members of the cluster (A in cluster 1). A loosely embedded firm may have one tie to a single member of the cluster (A in cluster 2).

Multinational companies fit with this configuration. On one hand, any firm has a territorial location (Torre & Rallet, 2005) which embeds it in a domestic network of stakeholders. On the other, a firm's international expansion connects the firm to foreign clusters of stakeholders. In a globalized economy, domestic stakeholders constitute dense clusters that are loosely connected to clusters of stakeholders in other countries (Kogut, 2012). A firm tends to be highly embedded in its own domestic cluster of stakeholders and less embedded in foreign ones.

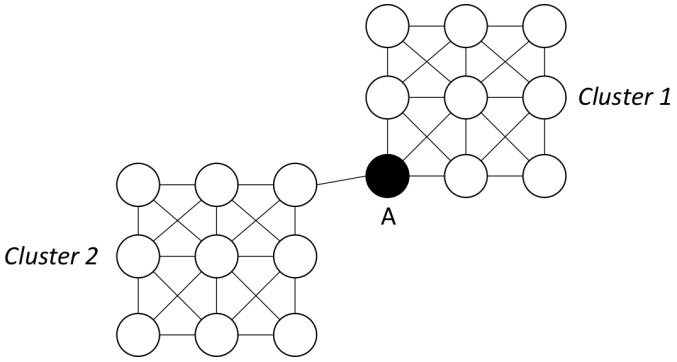

Figure 2 . Two structural positions in a small-world network

A firm's embeddedness influences how it prioritizes the economic responsibility towards shareholders relative to the social responsibility towards other stakeholders (Doh & Quigley, 2014). In other words, the degree of embeddedness shapes whether a firm acts to achieve only one objective or whether its actions are intended to achieve multiple objectives (Mitchell, Weaver, Agle, Bailey & Carlson, 2016). A low degree of embeddedness leads a firm to form instrumental relationships with its stakeholders and to focus on maximizing profits (Filatotchev & Nakajima, 2014). Conversely, a high degree of embeddedness may lead a firm to worry about the legitimacy of its managerial decisions, thereby motivating it to consider the interests of other stakeholders (Tost, 2011). When making managerial decisions, being highly embedded obliges a firm to compromise between its economic responsibility and its social responsibility.

One suggests that when a firm and its corporate leaders are highly embedded in a cluster of stakeholders (Firm A, cluster 1), it experiences more economic coercion and social pressure to consider these stakeholders' interests. Firms that are more embedded in a network of actors are more vulnerable to stakeholders' efforts to deprive them of resources. Additionally, highly embedded firms experience social pressure to respect the cluster's norms and try to behave legitimately when making managerial decisions. The combination of shared expectations, the ease of information exchanged between stakeholders and the potential for coalition formation – all of which are present in dense clusters – tend to produce strong, coordinated pressure from stakeholders, which impacts whether a firm complies with the stakeholders' social demands (Rowley, 1997).

Firms which (1) are based in the same country where the company is headquartered, (2) depend on local regulations, (3) receive public subsidies, (4) have a significant number of domestic consumers and employees, and (5) have positive local reputations are highly professionally embedded in the national cluster of stakeholders. A firm's embeddedness is even greater if its corporate leaders are citizens of the country and/or were educated in the country and still live in it.

Conversely, a loosely embedded firm (Firm A, cluster 2) is less sensitive to economic coercion related to resource dependence and social pressure from stakeholders to behave legitimately. Due to its lower degree of embeddedness, it is easier for a loosely embedded firm to implement decisions aimed at maximizing shareholders' interests and to ignore other stakeholders' claims. In this case, a firm can prioritize its economic responsibility towards the shareholders and neglect its social responsibility towards employees and other stakeholders. Foreign firms tend to be less embedded in other national systems where they operate, especially if the

country does not represent a major market and the firm does not depend on support from the local government.

SYSTEMIC SHOCKS IN THE SMALL-WORLD NETWORKS OF STAKEHOLDERS AND CORPORATE POLITICAL STRATEGY

Complex network theory adds a dynamic dimension to stakeholder theory by pointing out how systemic shocks disrupt the alignment of interests in a network and trigger interactions between a firm and its stakeholders. The concept of a small-world network brings a structural dimension by highlighting two extreme degrees of firm embeddedness in a network of stakeholders. The combined effect of shocks and firm embeddedness influence the firm's corporate political strategy and return the network of stakeholders to equilibrium.

Characterizing the context and explaining corporate political strategy, the conceptual model introduced in this paper articulates the nature of the systemic shock (random or intentional) and the degree of firm embeddedness (low or high) in the cluster of stakeholders affected by the managerial decision (Table 1).

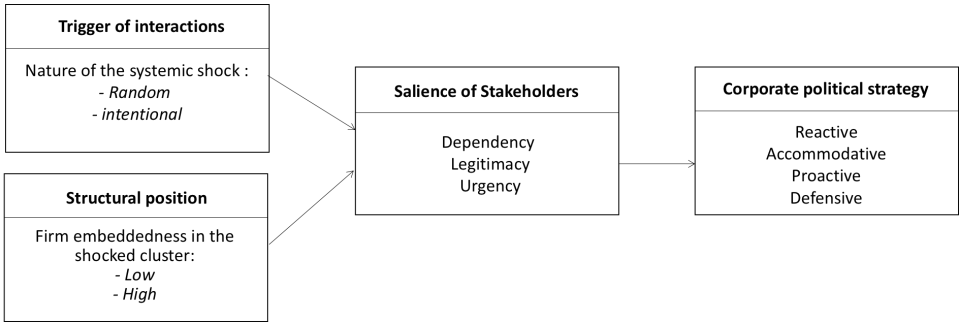

Table 1 - Conceptual model

I propose re-interpreting the three determinants of stakeholder saliency (resource dependence, legitimacy and urgency) in terms of complex network theory. First, the nature of the shock determines the urgency faced by a firm and the legitimacy of its decisions: random shocks create an urgent situation and render managerial decisions taken in response more legitimate; conversely, intentional shocks do not warrant the same urgency and therefore do not confer the same level of legitimacy to managerial decisions. Second, the degree of firm embeddedness is associated with its dependence on resources held by stakeholders and therefore is also associated with the potential for economic coercion. Moreover, firm embeddedness determines its quest for legitimacy and its sensitivity to social pressure which seeks to enforce social norms.

I propose that after a shock, economic coercion and social pressure impact firms differently depending on their level of embeddedness. While a highly embedded firm considers stakeholders' interests and helps return the network to its initial equilibrium, a loosely embedded firm is less sensitive to economic coercion and social pressure from stakeholders. In the latter case, the destabilized cluster tends to reach a different equilibrium in which the firm occupies a different position or is absent.

The combination of the nature of the shock (random or intentional) and the degree of firm embeddedness (low or high) predicts the corporate political strategy (Table 2). A loosely embedded firm facing a random shock chooses a reactive corporate political strategy and quits the cluster. A highly embedded firm facing a random shock favours an accommodative corporate political strategy and remains in the cluster. A loosely embedded firm which causes an intentional shock chooses a proactive corporate political strategy and leaves the cluster. A highly embedded firm which intentionally imposes a shock favours a defensive corporate political strategy and is forced to stay in the cluster.

	Firm embeddedness	
	Low	High
Shock		
Random	**Reactive** Independent Legitimate Urgency	**Accommodative** Dependent Legitimate Urgency
Intentional	**Proactive** Independent Illegitimate No urgency	**Defensive** Dependent Illegitimate No urgency

Table 2 – Complex network perspective on corporate political strategy

To illustrate the conceptual framework, I consider industrial restructurings as systemic shocks. An industrial restructuring accompanied by redundancies represents a shock that changes the balance of interests between the employees and the employer. Such a shock becomes systemic by involving other stakeholders (e.g. trade unions, government, local and national politicians, customers, civil servants, journalists and suppliers) who may interact with each other to influence the firm's decision (Ferrary, 2009).

The ability of stakeholders to influence a firm may result in the preservation of jobs and a return to the initial equilibrium. Conversely, the inability of stakeholders to influence a firm may lead to the loss of jobs and the emergence of a new equilibrium. The speed of the implementation of the managerial decision also reflects the stakeholders' capacity to influence the decision. When stakeholders have more influence, firms implement restructuring decisions slowly or might even abandon these decisions.

Different restructurings correspond to the two types of systemic shocks (i.e. random and intentional). A restructuring can be an urgent response on the part of a firm to a random shock, such as a macroeconomic crisis that induces financial losses. Alternatively, a firm may decide to restructure in order to increase its profitability and its dividends for shareholders. In this case, the firm causes an intentional shock in the network of stakeholders.

THE REACTIVE CORPORATE POLITICAL STRATEGY OF A LOOSELY EMBEDDED FIRM FACING A RANDOM SHOCK

A random shock creates urgency for all the actors in a cluster, i.e. the firm and the stakeholders. When a random shock occurs, the firm must respond to the unexpected, external phenomenon threatening its future. Firms do not cause or induce random shocks but are forced to experience them. A macroeconomic crisis is one example of this type of shock, and this crisis might lead a firm to restructure to preserve the entire organization. A restructuring accompanied by job cuts in a company experiencing financial losses is seen as legitimate by numerous stakeholders who accept that a firm losing money must restructure to survive.

Our conceptual model suggests that the implementation of the restructuring is influenced by the degree of firm embeddedness in the cluster of stakeholders. Industrial restructuring accompanied by redundancies is easier to implement when a firm is loosely embedded in the cluster. The low degree of embeddedness means that the company does not depend on resources controlled by the stakeholders impacted by the restructuring. Therefore, the firm is less affected by economic coercion from these stakeholders. Moreover, a loose embeddedness implies that the firm and its corporate leaders are less sensitive to social pressure from stakeholders to conform to collective norms and to behave in a legitimate way.

Legitimacy associated with random shocks and loose embeddedness leads the firm to choose a reactive corporate political strategy to implement its business decision. In this case, a firm's behaviour is driven by strict economic rationality and the single objective of satisfying shareholder interests by saving the organization. A redundancy plan is a quick way to downsize an organization and to reduce financial losses. This method of adjustment ignores the employees' interests and the interests of other relevant stakeholders, including trade unions and politicians.

From the perspective of complex network theory, due to its loose embeddedness, the firm would not help the network to return to its original equilibrium. Instead, the interactions between the stakeholders create the emergence of a new equilibrium in which there are fewer employees or in which the firm is not present.

Proposition 1. A loosely embedded firm facing a random shock tends to adopt a reactive corporate political strategy.

THE ACCOMMODATIVE CORPORATE POLITICAL STRATEGY OF A HIGHLY EMBEDDED FIRM FACING A RANDOM SHOCK

As in the previous case, the firm reacts to a random shock that it faces with the whole cluster of stakeholders. The difference lies in the degree of firm embeddedness. Although the randomness of the shock may legitimize a restructuring decision, the high embeddedness of the firm shapes its interactions with stakeholders and its corporate political strategy in a different way. The company's dependence on resources held by the stakeholders creates a high degree of embeddedness. Stakeholders who control more vital resources have a greater potential to exert economic coercion on a firm and therefore have more influence. Embeddedness also makes corporate leaders more sensitive to social pressure to direct the corporation in a socially legitimate way. In the case of restructuring, firms tend to preserve jobs to fulfil their corporate social responsibility and maintain their legitimacy in the cluster.

In the accommodative corporate political strategy, a firm claims that the urgency created by the shock's randomness legitimizes the restructuring decision. The firm conducts negotiations with multiple stakeholders to obtain concessions in exchange for limiting redundancies. Therefore, the accommodative strategy pursues multiple objectives and takes the interests of multiple stakeholders into account. From a dynamic perspective, its high embeddedness forces a firm to negotiate with several stakeholders to reach a compromise that balances their interests. In terms of complex network theory, this compromise means that the cluster of stakeholders returns to its initial equilibrium or to a similar situation.

Proposition 2. A highly embedded firm facing a random shock tends to adopt an accommodative corporate political strategy.

THE PROACTIVE CORPORATE POLITICAL STRATEGY OF A LOOSELY EMBEDDED FIRM CAUSING AN INTENTIONAL SHOCK

A firm can intentionally cause a systemic shock by deciding to restructure the organization and cut jobs even though it is already financially profitable. The goal of this decision is to increase dividends and maximize shareholder value. For several other stakeholders (notably employees, trade unions and some politicians), the firm's profitability makes such dismissals illegitimate.

To the extent that a firm induces the shock, it controls the timing and consequently does not have to respond to an urgent situation. The control over timing allows the firm to design a proactive corporate political strategy which anticipates potential conflicts. For example, corporate leaders may choose to schedule the official announcement of the restructuring at a moment that limits the ability of stakeholders to mobilize (e.g. holidays and weekends).

A firm which does not depend on stakeholder resources is less embedded in the cluster of stakeholders. Therefore, these stakeholders have less economic influence and less ability to change the firm's behaviour. The firm's low degree of embeddedness also means that it is much less sensitive to social pressure to behave legitimately and preserve jobs. In this case, the managerial decision and corporate political strategy are oriented towards the single objective of maximizing shareholder interests. Economic rationality leads the firm to close its less profitable sites and to carry out redundancies in order to increase profitability. From the dynamic perspective of complex network theory, the network evolves towards a new equilibrium in which the firm is no longer present.

Proposition 3. A loosely embedded firm causing an intentional shock tends to adopt a proactive corporate political strategy.

THE DEFENSIVE CORPORATE POLITICAL STRATEGY OF A HIGHLY EMBEDDED FIRM CAUSING AN INTENTIONAL SHOCK

As in the previous case, the firm intentionally creates a systemic shock. The managerial decision to restructure seeks to increase the profitability and the dividends of a firm already profitable. Since the firm controls the timing, it can anticipate and prepare for the shock. As in the previous case, the stakeholders may question the legitimacy of the managerial decision. However, in this case, the high degree of embeddedness affects the firm's behaviour differently. Such high embeddedness necessitates a different corporate political strategy and therefore creates different network dynamics.

In this network configuration, the firm depends on resources owned by the stakeholders affected by a restructuring decision. Therefore, the stakeholders can threaten to withdraw economic resources to coerce the firm. High embeddedness also means that corporate leaders are sensitive to social pressure exercised by the stakeholders to make the firm behave legitimately and act in a socially responsible manner (e.g. to preserve jobs). Although the original decision is oriented towards the single objective of satisfying shareholder interests, a firm's embeddedness may force it to take multiple interests into account and to change its managerial decision. Finally, due to the constraints imposed by stakeholders, the defensive corporate political strategy is oriented towards satisfying multiple stakeholders. From the dynamic perspective of complex network theory, a highly embedded firm which induces a shock will therefore be forced by the cluster of stakeholders to contribute to returning the network to its original equilibrium.

Proposition 4. A highly embedded firm causing an intentional shock tends to adopt a defensive corporate political strategy.

FOUR EXAMPLES OF CORPORATE POLITICAL STRATEGY RELATED TO INDUSTRIAL RESTRUCTURING

In a heuristic perspective, to illustrate how the nature of systemic shocks and the degree of firm embeddedness in the small-world networks of stakeholders affect corporate political strategy, I present four cases of major industrial restructuring which were accompanied by job cuts and took place in France in 2012. That year, France faced a macroeconomic crisis and rising unemployment. Presidential elections which took place in May of 2012 drew attention to political issues related to unemployment.

The four examples have been selected for three reasons: each firm decided to dramatically downsize its activities in France in 2012, each firm is similar in terms of industry (two are manufacturing firms and two are pharmaceutical firms) and is a large multinational company. Two are French companies headquartered in France with operations located in their domestic country: Peugeot-Citroën (184,107 employees worldwide) and Sanofi-Aventis (110,000 employees). Two are foreign firms headquartered abroad with operations in France: ArcelorMittal (209,000 employees) and Merck (68,000 employees). The annual reports and the extensive media coverage of these redundancy plans provide secondary data (press releases, interviews, newspaper articles and blogs) and are used to illustrate the conceptual model (Earl, Martin, McCarthy & Soule, 2004; King, 2008).

To differentiate a random shock from an intentional shock, I consider the firm's profitability and its dividend policy. A firm that suffers major operating losses and stops paying dividends to shareholders is seen as suffering a major random shock which threatens the firm's survival and justifies downsizing the organization. A firm with huge operating profits, which pays or even increases dividends to shareholders, is not seen as suffering a major random shock which would threaten the firm's survival and justify downsizing the organization. Downsizing in this situation can be considered an intentional shock that a firm imposes to increase profitability.

To evaluate firm embeddedness, I consider the firm's dependence on the French national system (headquarters located in France, listed on the French stock market, amount of French public subsidies and importance of French customers and employees). I also consider the citizenship of the CEO, his or her place of residence, and the number of French citizens on the board of directors and executive committee.

Following Frooman (2010) and King (2008), I consider the level of media coverage of the restructurings by two major French newspapers (*Le Monde* and *Les Echos*) to be a useful measure for whether the topic emerged as a national issue involving stakeholders. To evaluate the stakeholders' influence, I also consider how quickly the restructuring was implemented. When decisions are implemented speedily, the French cluster of stakeholders has less ability to influence the firm's decision. A firm which reverses its initial decision would indicate that stakeholders have exerted a great deal of influence. Finally, I consider whether the restructurings were publicly announced before or after the presidential elections. In 2012, Mr. Sarkozy, the incumbent president, was running for re-election, and the media reported that his government had pressured firms which were considering downsizing to postpone their decision until after the elections. I summarize these data in Table 3.

Firm	**ArcelorMittal**			**Sanofi-Aventis**			**Peugeot-Citroen**			**Merck**		
Systemic shock		**Random**			**Intentional**			**Random**			**Intentional**	
Year	2011	2012	2013	2011	2012	2013	2011	2012	2013	2011	2012	2013
Revenues (billion)	93.973	84.213	79.440	33.389	34.947	32.951	58.509	55.446	54.090	48.047	47.267	44.033
Income Before Taxes (billion)	2.68	-5.375	-2.996	5.257	5.774	4.603	0.347	-5.112	-2.004	7.334	8.739	5.545
Profitability	2.85%	-6.38%	-3.77%	15.74%	16.52%	13.97%	0.59%	-9.22%	-3.70%	15.26%	18.49%	12.59%
Dividend per share	0.75	0.2	0.2	2.65	2.77	2.8	0	0	0	1.5	1.7	1.9
Public announcement of restructuring	Before elections (February)			After elections (July)			After elections (July)			After elections (July)		
Organizational embeddedness		**Low**			**High**			**High**			**Low**	
Firm nationality		Foreigner			French			French			Foreigner	
Dependence on the French market		Low			High			High			Low	
Dependence on public administration		Low			High			High			Low	
Social embeddedness		**Low**			**High**			**High**			**Low**	
CEO citizenship		Foreigner			Foreigner			French			Foreigner	
CEO place of residence		Foreigner			France			France			Foreigner	
French administrators		1 on 11			11 on 16			12 on 14			0 on 15	
French on the Executive Committee		0 on 8			15 on 20			9 on 9			0 on 10	
Media coverage (articles)		**High**			**Low**			**High**			**None**	
Le Monde		275			33			271			4	
Les Echos		353			45			176			2	
Corporate political strategy		**Reactive**			**Defensive**			**Accommodative**			**Proactive**	
Restructuring implementation	Unit closure (1 year)			Unit preservation			Slow unit closure (2 years)			Fast unit closure (6 months)		

Table 3 – Four cases of industrial downsizing

ARCELORMITTAL'S REACTIVE CORPORATE POLITICAL STRATEGY

In 2012, ArcelorMittal, an international steel group, faced a major random shock related to a macroeconomic crisis in Europe[1]. Its revenues fell by 10.3% (from 93.9 billion euros to 84.2 billion), and it suffered a 5.37 billion euro operating loss (in 2011, the firm generated a 2.68 billion euro operating profit). In 2012, ArcelorMittal reduced its dividends from 0.75 in 2011 to 0.2 euros (Table 3).

In response to the urgent need to preserve the organization, the firm decided to restructure and close several mills. In February 2012, before the French presidential elections, upon publication of the financial results, Mr. Mittal publicly announced the closure of the Florange steelworks located in France and the termination of 629 jobs.

The public announcement of the restructuring led several stakeholders to mobilize in opposition. CFDT, a major French trade union, made the fight against the site closure a symbolic fight and became deeply

1. In 2011, economic growth was 1.7% in France and 1.7% in Europe. In 2012, it was 0% in France and -0.4% in Europe.

involved. The media covered the restructuring extensively[2]. Due to the presidential elections approaching in May, politicians became even more involved and the closure became a major campaign issue which pitted the incumbent president, Mr. Sarkozy, against his main opponent, Mr. Hollande. During a public speech in Florange in February 2012, Mr. Hollande pledged that if he were elected, he would keep the site active[3]. For his part, President Sarkozy compelled Mr. Mittal, ArcelorMittal's CEO, to meet at the presidential palace in an attempt to change his decision[4].

However, on 30 November 2012, the newly elected president, Mr. Hollande, ended his opposition to the closure of the Florange steel mill, and the site was definitively closed in April 2013[5]. Mr. Hollande implicitly recognized the legitimacy of the firm's decision and his own inability to influence the firm. Only one year passed between the public announcement and the effective closure of the site. One year after the closure, according to *Le Monde*, 120 of the 629 employees who lost their jobs at the mill had been internally redeployed, 200 had retired and the rest were still unemployed. Ultimately, a new economic equilibrium emerged in the Florange area without the presence of ArcelorMittal.

The random nature of the shock and the low degree of firm embeddedness in the network of stakeholders together explain the reactive corporate political strategy which was driven by strict economic rationality and which focused on the preservation of the firm. ArcelorMittal's headquarters are officially located in Luxembourg, operational management is based in the Netherlands and the company receives neither public procurements nor public subsidies for research from the French state. The firm's clients are large industrial groups, not individual consumers. In addition, only 6% of its products are delivered to customers based in France[6]. Thus, due to this loose embeddedness, ArcelorMittal does not depend on resources owned by local stakeholders, and it is not sensitive to their economic coercion. Moreover, corporate leaders do not belong to the French community. The CEO is an Indian citizen and lives in London. Only one director among the eleven members of ArcelorMittal's board of directors is French, and none of the eight members of the corporate executive committee is French. Therefore, the corporate leaders are not sensitive to social pressure to behave in a socially responsible way by saving jobs. In response to a random shock, the combination of urgency, legitimacy and resource-independence, and the firm's loose embeddedness led ArcelorMittal to adopt a reactive corporate political strategy, and, ultimately, to exit from the French cluster.

PEUGEOT-CITROËN'S ACCOMMODATIVE CORPORATE POLITICAL STRATEGY

In 2012, Peugeot-Citroën, a major French car manufacturer, was also strongly impacted by the European economic crisis. The firm's revenue fell 5.2% (from 58.5 billion euros to 55.4 billion), and it faced a 5.11 billion-euro operating loss (in 2011, the company realized a 0.347 billion euro operating profit). In 2012, it did not pay any dividend to its stakeholders (Table 3). Facing a business urgency and to ensure its survival, Peugeot-Citroën decided to carry out an industrial restructuring

2. LexisNexis shows that between January 2011 and December 2013, the closure of the Florange site was mentioned 353 times in *Les Echos* (the main French business newspaper) and 275 times in *Le Monde* (the most influential French newspaper).
3. See *Le Monde*, 24 February 2012.
4. See *Le Monde*, 1 March 2012.
5. See *Le Monde*, 24 April 2013.
6. See the company's annual report.

and close less profitable factories. From an economic point of view, closing the French plant in Aulnay and the termination of 2,900 jobs was seen as the most economically rational decision since this was one of the most unproductive plants in the company[7].

When negative financial results were published in February 2012, the company did not publicly announce the restructuring, although several unions had already mentioned rumours about it. A variety of media outlets reported that Mr. Bertrand, the Minister of Labour at that time, had demanded that Peugeot-Citroën suppress any announcement of a redundancy plan before the presidential elections[8].

On 12 July 2012, after the May presidential elections and during the summer vacations, Peugeot-Citroën officially announced the discontinuation of operations at the Aulnay plant in 2014 and the simultaneous termination of 2,900 jobs. The company also publicly pledged that "zero employees will have to register at an employment centre and that the firm will help them get a job, internally or externally"[9]. From January to May 2013, workers at the Aulnay site went on strike, and this large-scale mobilization of its workers received extensive media coverage[10].

At the same time, Secafi – a consulting firm connected with the major trade union at Peugeot-Citroën, CGT, and employed by the employees' Work Council – publicly acknowledged the economic justifications for the plant closure[11]. Additionally, a government-appointed expert confirmed both the poor productivity of the Aulnay site, as well as the economic need to restructure the company. These two similar opinions bolstered the legitimacy of the need to downsize the organization.

On 16 May 2013, CGT signed an agreement to end the strike and to approve the redeployment plan of its previously terminated workers. The terms of this agreement plan stipulated that the company re-employ 1,500 workers in its other units and help the others find jobs with other employers in the Aulnay area. In January 2014, Peugeot-Citroën announced that 90% of the terminated employees had been employed again[12]. In April 2014, the Aulnay plant closed. Two years had elapsed between the public announcement and the actual closure of the site.

Peugeot-Citroën obtained several forms of support from the French government in return for the socially responsible implementation of the restructuring. In 2012, the government gave the carmaker's subsidiary bank a 1.2 billion-euro state guaranty (with an option to extend to 5 billion euros) to allow the firm to borrow money on the financial markets. In May 2014, the French government invested 800 million euro in Peugeot-Citroën and became a major shareholder of the company with a 7% stake. In addition, the government allowed Dongfeng, a Chinese automaker, to take a 7% stake in the company's capital. The French government also solicited public companies (such as RATP and SNCF) and other enterprises which depended on public procurement to recruit employees laid off by Peugeot-Citroën[13].

From a dynamic perspective, by keeping most employees in the company and by ensuring that no worker was left unemployed, the CEO of

7. See *Le Monde*, 11 September 2012.

8. Several media reports mentioned this information, most notably *Challenge*, 15 February 2012.

9. See *Le Monde*, 12 July 2012.

10. LexisNexis shows that between January 2011 and December 2013, the closure of the Aulnay site was mentioned 271 times in *Les Echos* and 176 times in *Le Monde*.

11. See *Les Echos*, 12 October 2012.

12. See *Challenge*, 10 January 2014.

13. See *Le Monde*, 17 May 17 2016.

Peugeot-Citroën actively helped return the cluster of stakeholders to an equilibrium which was similar to that of the initial situation.

The nature of the shock and the firm's high degree of embeddedness in the stakeholder network led to this outcome. On the one hand, the randomness of the shock, which was caused by the macroeconomic crisis, created an urgent situation that conferred some legitimacy on the restructuring decision. Peugeot-Citroën is highly embedded in the French network of stakeholders. The company is French and is headquartered in Paris. Historically, the main shareholder (the Peugeot family) is French, and the company is listed on the Paris stock exchange. France is the main car market for the automaker (approximately 25% of its sales). The company benefits from large public procurement and has received numerous state subsidies, particularly for its R&D activities. Of the 204,287 workers employed by the firm, 93,479 work in France (45.7% of its workforce)[14]. Due to this embeddedness, Peugeot-Citroën was especially sensitive to economic coercion from local stakeholders and was therefore compelled to negotiate the implementation of its downsizing. Corporate leaders are also highly embedded within French society. The CEO, Mr. Varin, is a French citizen who graduated from the most prestigious French engineering schools ("Polytechnique" and "Ecole des Mines") and resides in France. Of the 14 members on its board of directors, 12 are French citizens. Aside from its French CEO, all nine other members of the executive committee are also French.

The firm's embeddedness shaped its interactions with stakeholders and the choice of an accommodative corporate political strategy. Due to its high level of embeddedness, the firm depended on the stakeholders' resources and therefore had to take the interests of various influential stakeholders (employees, trade unions, local and national politicians) into account. Since Peugeot-Citroën and its corporate leaders are highly embedded within the French community, they are sensitive to social pressure forcing the firm to behave in a socially responsible way.

In response to a random shock, the combination of urgency, legitimacy and resource dependence, and the firm's high embeddedness led Peugeot-Citroën to adopt an accommodative corporate political strategy and, ultimately, to continue to remain in the French cluster.

MERCK'S PROACTIVE CORPORATE POLITICAL STRATEGY

In 2012, Merck, a US pharmaceutical company achieved revenues of $47.2 billion (down 1.6% from 2011) and an operating profit of $8.7 billion (up 13% from 2011). In 2012, Merck increased its dividends from $1.5 in 2011 to $1.7 (Table 3). The high level of profitability publicized in the firm's 2012 annual report did not justify any urgent restructuring. However, Merck decided to restructure the organization and to cut 800 jobs in France, including closing the site of Eragny-sur-Epte, which employed 347 people. The public announcement of the closure was made at the company's Works Council on 30 June 2012, which was the eve of the summer holiday period, and took place after the French presidential elections.

Employees and local trade unionists mobilized along with local politicians and the local media. In this case, however, the national media barely covered the restructuring[15], and the government and national politicians were not involved in the case. In February 2013, the Eragny-sur-

14. The data is taken from the firm's annual report.

15. LexisNexis shows that between January 2011 and December 2013, the closure of the Eragny-sur-Epte site was mentioned twice in *Les Echos* and 4 times in *Le Monde*.

Epte factory was definitively closed. Of the 800 employees, 110 retired and the remainder were dismissed. Merck did not help former employees find internal or external employment. Just six months passed between the public announcement of the redundancy plan and the actual closure of the site. From a dynamic perspective, in the local cluster of stakeholders, a new equilibrium emerged without Merck.

The intentionality of the shock along with the loose embeddedness of the firm explains the proactive corporate political strategy. Its profitability enabled the firm to pick a time to announce the restructuring which was most likely to avoid stakeholder mobilization. Choosing 30 June, the beginning of the summer period and after the presidential elections, is consistent with a desire to avoid mobilization. Moreover, Merck was not embedded in the cluster of impacted stakeholders. The firm is listed on the US stock exchange, and the company headquarters is in the state of New Jersey in the US. In France, the company only has production sites and does not have R&D activities that could benefit from public financial support. The French market is not important for the company[16]. Therefore, due to its low degree of embeddedness, Merck did not depend on resources owned by the local cluster of stakeholders and, therefore, was not sensitive to its economic coercion. Moreover, its corporate leaders are not embedded in the French cluster of stakeholders. The CEO is a US citizen residing in the United States. No member of the board of directors or the executive committee is a French citizen. Due to their loose embeddedness, the corporate leaders were insensitive to social pressure to behave legitimately and to preserve jobs.

The combination of no-urgency, illegitimacy and resource-independence due to an intentional shock and the firm's loose embeddedness led Merck to choose a proactive corporate political strategy. Ultimately, when the network returned to equilibrium, the firm no longer belonged to the local cluster.

SANOFI-AVENTIS'S DEFENSIVE CORPORATE POLITICAL STRATEGY

In 2012, Sanofi-Aventis, a French pharmaceutical company, realized 34.9 billion euros in revenue (up 4.7% from 2011) and achieved an operating profit of 5.77 billion euros (up 9.9% from 2011). In 2012, the company increased its dividends from 2.65 euros in 2011 to 2.77 euros (Table 3). Despite this high level of profitability and without any urgency to justify it, in July 2012, during the holiday period and after the presidential elections, the company announced that a massive downsizing of the organization would take place in France. The aim was to reduce costs by 2 billion euros over three years. This industrial restructuring would affect the R&D in France for the first time in the company's history. Unofficial information spread by the media before the presidential election anticipated that the redundancy plan would terminate between 2,000 and 2,500 jobs in France and would include the closing of the historical Toulouse (France) research centre, which employed nearly 650 people.

Employees and unions were strongly opposed to this restructuring and particularly objected to the closure of the Toulouse site. In addition to organizing protest events and public demonstrations, they turned to the mayor of Toulouse, the president of the Midi-Pyrénées region (where Toulouse is located) and the regional commissioner for industrial affairs. The strong mobilization of employees led to the involvement of local and national elected representatives. The national media covered in depth the

16. See the firm's annual report for 2012.

downsizing and the demonstrations related to the closure of the research centre in Toulouse[17]. In early July, Mr. Montebourg, the Minister of Economy, summoned Sanofi-Aventis' CEO in order to persuade him to change his decision. Meanwhile, a coalition group including the main trade unions (CFDT, CGT, FO, CGC, CFTC) was created by the Works Council and challenged the economic justification for the restructuring. They provided a report authored by Syndex (a consulting group connected to CFDT) to the Minister of Economy to challenge the legitimacy of the downsizing. The report concluded that "given the economic and financial situation of the group and its prospects, it is perfectly possible to save the full scientific potential of Sanofi, in particular its French base".

The date of 25 September 2012 marks the first change in the firm's behaviour due to pressure from stakeholders. Sanofi-Aventis publicly announced that the restructuring plan would reallocate 900 jobs through "retirements, part-time jobs for senior workers and internal redeployment in France before 2015" and that "no relocation abroad of any site and no change in the number of industrial sites in France is planned"[18]. After the announcement, the Minister of Economy publicly stated that Sanofi had "followed the recommendations of the government" and that they had "requested that the Sanofi top executives further reduce their redundancy plan of 1,371 positions by conducting a respectful and constructive social dialogue"[19].

On 15 October 2012, Sanofi-Aventis presented a new restructuring plan with only 187 job terminations through natural retirements and without any layoffs. The plan also mentioned that the Toulouse research centre would be maintained (364 of its 617 positions were preserved, 184 transferred to other sites, and 63 were removed). The restructuring, which in July 2012 planned to cut between 2,000 and 2,500 jobs, ultimately did not cut a single job.

Both the illegitimacy of the decision of a very profitable firm to downsize and the high level of the firm's embeddedness in the cluster of affected stakeholders explain this outcome. Sanofi-Aventis was highly embedded because the company was established in France and is headquartered in Paris. The firm operates 26 plants and nine R&D centres in France. The company is listed on the Paris stock exchange. A total of 8% of its revenues come from France, and 28,179 of its 113,719 employees are located in France (24.8% of the workforce), including 5,000 in R&D activities. Sanofi-Aventis benefits from public subsidies which support its R&D activities and depends on the French administrative authorities for new drug accreditations and reimbursements from the Social Security Administration. Due to this high degree of embeddedness, the firm was very sensitive to economic coercion from local stakeholders and was obliged to negotiate the implementation of its downsizing. Its corporate leaders are also highly embedded in the French community. The CEO, Mr. Viehbacher, seems to be weakly embedded. He is a German-Canadian citizen, he did not study in France, and he has very little work experience in the country. However, the chairman of the Sanofi-Aventis's board of directors is French, and 11 of the 16 members of this board are also French citizens. Similarly, of the 20 members of the executive committee, 15 are French. Therefore, due to this embeddedness in the French community, corporate leaders were sensitive to the social pressure that finally forced the firm to behave in a socially responsible way and to

17. LexisNexis shows that between January 2011 and December 2013, the closure of the Toulouse site was mentioned 45 times in *Les Echos* and 33 times in *Le Monde*.

18. See *Les Echos*, 25 September 2012.

19. See *Le Monde*, 27 September 2012.

preserve jobs in France.

The combination of non-urgency, illegitimacy and resource dependence related to an intentional shock and the firm's high level of embeddedness led Sanofi-Aventis to choose a defensive corporate political strategy. From a dynamic perspective, the local cluster of stakeholders returned to its original equilibrium.

DISCUSSION

By utilizing complex network theory to explore firm behaviour and corporate political strategy, this paper contributes in three ways to stakeholder theory.

First, this paper offers a dynamic perspective to stakeholder theory by explaining the starting point of interactions between a firm and its stakeholders. Applying complex network theory to stakeholder theory enables scholars to describe networks of stakeholders as stable systems that are occasionally destabilized by systemic shocks. Firms and stakeholders do not always interact intensely, but shocks lead stakeholders to interact with the firm in new ways to restore an equilibrium. A shock triggers more interactions than merely that of the firm and a single stakeholder. Rather, a shock also involves other actors (e.g. customers, citizens, unions, politicians and public administration) who may cooperate to press for changes in the initial management decision. Shocks can be random or intentional. The nature of the shock shapes the urgency faced by a firm and the legitimacy of managerial decisions.

Second, complex network theory brings a structural perspective to stakeholder theory by using small-world networks to describe how a firm's position in a stakeholder network shapes its behaviour. The more embedded in a cluster a firm is, the more it depends on resources owned by local stakeholders and is sensitive to economic coercion. Moreover, the more embedded a firm is, the more likely it is to consider other stakeholders' interests and behave responsibly in order to appear legitimate. The degree of embeddedness thus affects the firm's quest for legitimacy and its sensitivity to social pressure.

Third, combining the dynamic and structural understandings offered by complex network theory leads to a conceptual model which combines the nature of the shock (random or intentional) and the degree of firm embeddedness (low or high) to predict corporate political strategy. According to this contextual perspective, stakeholder saliency is related to the firm's resource dependence, legitimacy and urgency of the situation. Stakeholder saliency is not an intrinsic or permanent attribute but depends on the nature of the shock and the degree of firm embeddedness in the stakeholder network. Corporate political strategy aims at managing stakeholders. Our conceptual framework, built on complex network theory, contributes to stakeholder theory by explaining what drives the choice of corporate political strategy selection and whether it is reactive, accommodative, defensive or proactive.

Prior stakeholder theory conceptualizations fail to explain why firms facing the same situation do not adopt the same corporate political strategy. Social psychology and behavioural economics account for these different behaviours by focusing on CEO personalities. They identify self-regarding CEOs who maximize shareholders' interests and altruistic ones who attend to other stakeholders' interests (Bridoux & Stoelhorst, 2014). Complex network theory offers an alternative explanation. A firm's behaviour depends on its degree of embeddedness in a cluster of stakeholders. The more embedded it is, the more it behaves in an altruistic

way by reciprocating and taking care of the stakeholders' interests. Embeddedness increases the potential for economic coercion and social pressure to force a firm to consider the stakeholders' interests and to comply with collective norms.

Isolated from economic coercion and social pressure, a loosely embedded firm tends to be more self-interested and oriented towards the optimization of the shareholders' interests. The degree of embeddedness explains why, in a globalized economy, a firm may behave differently depending on its embeddedness within national clusters. High embeddedness within a domestic cluster of stakeholders induces different firm behaviour than does low embeddedness in foreign clusters. Due to local economic coercion and social pressure, the same multinational company may act fairly in its domestic country but may act unfairly in foreign countries in which it is loosely embedded.

IMPLICATIONS FOR FURTHER RESEARCH

This article opens up several new research opportunities. Complex network theory has theoretical implications for stakeholder management. Using complex network theory to explore the dynamics of stakeholder networks marks a conceptual breakthrough which may inform further research on industrial relations. The concept of a small-world network reduces the analytic issues related to identifying or measuring network density. The small-world network structure describes the real world as a set of dense clusters loosely connected with each other and de-emphasizes the role of variation in cluster density as the primary tool for predicting structural change. Empirical studies confirm that such structures exist in the world of business (Corrado & Zollo, 2006; Davis, Yoo & Baker, 2003; Fleming et al., 2007; Kogut & Walker, 2001; Kogut, 2012). Thus, research should perhaps focus slightly less on the structure of stakeholder networks and perhaps focus slightly more on exploring the implications of an individual's position within the structure.

This article also opens up possibilities for empirical research. Four examples of industrial downsizing have been presented to illustrate the conceptual model. An empirical project could translate these propositions into testable hypotheses. Empirical tests should examine whether the theory describes how firms react to their stakeholder environment and the corporate political strategy they select when facing a systemic shock. The four cases also contribute to future quantitative research by offering proxies that could be used to evaluate the nature of systemic shocks and the degree of firm embeddedness.

IMPLICATIONS FOR PRACTICE

By providing a conceptual framework for anticipating and responding to stakeholder behaviour, the model attempts to inspire corporate leaders to engage with stakeholders constructively and effectively. It contributes to the five-step process of stakeholder management suggested by Frooman (2010), by showing how firms can identify political issues related to managerial decisions, map stakeholder networks affected by the decision according to the firms' embeddedness, prioritize stakeholders depending on their interests and potential for influence, analyse stakeholders' potential actions and coalitions, and engage with stakeholders by designing a corporate political strategy.

Moreover, the consequences of random shocks on the stakeholders' behaviour represent a potential risk for firms. In the same way that

organizations implement risk management practices to technically manage industrial accidents, organizations might also define processes to deal with stakeholders when facing a systemic random shock involving multiple actors.

For stakeholders trying to determine ways to influence firm behaviour, this article may also suggest tactics such as identifying potential allies and the levers to mobilize them most effectively. As secondary stakeholders usually do not exert any direct influence over a firm, they need to mobilize influential primary stakeholders (Clarkson, 1995; King, 2008). The conceptual model provided here offers clues for designing a political strategy which includes other stakeholders in a coalition seeking to influence a firm.

LIMITATIONS

The conceptual model is illustrated by a specific kind of shock in a specific context: industrial downsizing in France. Such examples serve a heuristic purpose and are aimed at paving avenues of approach for future empirical research on restructuring. However, other kinds of systemic shocks, such as acquisitions or radical innovations, may also affect small worlds of stakeholders and corporate political strategy. In addition, to identify differences and similarities related to different institutional settings, it could be valuable to compare the dynamics of different countries' stakeholder clusters facing similar shocks.

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Dr Michel Ferrary is Professor of HRM and Innovation Management at the Graduate School of Economics and Management of the University of Geneva (Switzerland) and affiliated scholar at Skema Business School (France). His research covers the areas of social network, knowledge management, open innovation and strategic human resource management. For his research, he is frequently visiting scholar at Stanford University. He has extensively published in outlets such as the *Journal of Business Ethics*, *Economy & Society*, *Technological Forecasting and Social Change*, *Entrepreneurship Theory and Practice* and the *Journal of Socio-Economics*.

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