Toward a Spatial Perspective on Business Sustainability: The Role of Central Urban and Environmentally Sensitive Areas in Energy Corporates' Green Behaviours

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Abstract. As one of the most concerned topics in strategic management research, the motivations of energy corporates' green behaviours are extensively explored by scholars, however, only a few noticed the role of geographic antecedents. To bridge this gap, we argue that energy firms' green behaviours will be greatly predicted by its location, more specifically, proximity to environmentally sensitive areas and central urban areas. Draw on neo-institutional theory and stakeholder theory, we argue that institutional forces mediate the links between energy corporates' green behaviours and proximities, while different proximity affects via different institutional logics. The results are discussed along with managerial implications.

1. Introduction

"Green is gold", as President Xi Jinping said, environmental protection and sustainable development are turning into one of the most concerned topics in nowadays' China. Energy corporates, who constantly affect our environment while being affected by environment per se, are the most important participants in this nation-wide discussion. In strategic management, corporate green behaviours (hereafter, CGB) is considered a dimension of corporate social responsibilities (hereafter, CSR)[1], which refers to "actions that appear to further some social good, beyond the interests of the firm and that which is required by law" [2].To facilitate firms engage in CSR practice, researchers have conducted a lot of research on the drivers of firms' green behaviours, including organizational benefits [3], institutional pressure[4] and managerial preference[5]. However, most researchers neglected the importance of a firm's location, assuming the location decides nothing, which is apparently hilarious [6].

Despite the neglect of spatial element in mainstream CSR research, a few scholars have noticed the importance of geography in firms' CSR behaviour. Marquis *et al.* proposed the concept community isomorphism; argue that not only the organizational field but also the community field will shape corporates' social actions [7]. Husted *et al.* further investigated the positive effects of proximity to financial centres and local CSR density on CSR engagement [8]. Marquis and Tilcsik explored the impacts of industrial peers and community peers on CSR engagement, finding that both of the peers have positive influences on focal firm's philanthropy [9]. DeBoer *et al.* found that numbers of local green competitors and proximity to green locale are positively related to a firm's green behaviors [10].

The above literatures contributed to the link between spatial elements (i.e. location or density) and CSR engagement; however, most of them failed to clarify the inner mechanism in this link, especially in the field of green behaviors, which is still an unsolved puzzle.

To bridge this gap, we propose that firms' green behaviors will be saliently affected by its location, more specifically, proximity to environmentally sensitive areas (hereafter, ESA) or proximity to central urban areass, or both. Draw on institutional theory, we argue that both of them foster firm's green behaviors via institutional pressure, while differing in forms and level. In doing so, we explore three research questions. First, this paper explores the mediate mechanisms between proximity to environmentally sensitive areas and firms' green behaviors. Second, this paper explores the mediate mechanisms between proximity to central urban areass and firms' green behaviors. Third, this paper explores the interaction effect of two spatial antecedents on prompting firm's green behaviors.

The rest of this paper is organized as follows. We begin by defining our major constructs, then we present our conceptual model and raise propositions about how proximity to environmentally sensitive areas or proximity to central urban areass facilitate firms' green behaviors. Finally, we discuss the implications of ours research findings on managerial practice and research.

2. Some important constructs

2.1. Proximities

In this paper, the concept proximity merely refers to geographic or spatial proximity. Following Boschma [11], we define our proximity as the spatial or physical distance between economic actors, both in its absolute and relative meaning.

Environmentally sensitive areas (ESA) refers to landscape elements, ecosystems, areas or places which are imperative to the long-term maintenance of biodiversity, soil, water and other natural resources, which could be threatened by development [12]. In this paper, proximity to ESAs means the geographic distance between a firm's location and the nearest ESA. A firm close to such ESAs may have a greater chance to compromise the natural environment that its distant counterpart does, no matter intentionally or not. Therefore, those corporates are usually monitored by government and society more rigidly. Proximity to central urban areas refers to the geographic distance between a firm's location and the nearest central urban areas, by employing the term 'central urban areas', we mean major cities such as Beijing, Shanghai or Shenzhen, not any normal cities (i.e. third-tier cities).

2.2. Corporate green behavior

We define CGB as corporates' actions to advance natural environment, beyond the interests of the firm or regulative requirement. We use term 'behaviour' to emphasize the factual practice in environment protection, but not those ethics initials or commitments. Corporates may engage in environmental protection in a variety of forms, including cash or in-kind donations, cleaner production process, reduction of energy use, etc.

2.3. Institutional pressure

The concept institutional pressure derives from institutional theory, which refers to those forces exerted on organizations by surrounding institutional environment and socially constructed system [12]. Under such pressures, the firms will behave in compliance with the social expectation to obtain legitimacies. According to Scott's tri-pillar of institutions, institutional pressure can be divided into regulative pressure, normative pressure and mimetic pressure. Regulative pressure originates from legislation and regulations, which has coercive forces on organizational behaviours; normative pressure derive from social norms, usually contains social expectations and inform firms "what is right to do around here"; mimetic pressure derives from cultural cognition, which signals firms that "how things are done around here", resulting in the mimetic actions of firms [7].

3. Proximities and corporate green behaviours: Inner mechanisms and conceptual model

3.1. Proximity to ESAs and corporate green behaviors

According to Waldo Tobler [13], "Everything is related to everything else, but near things are more related than distant things", the basic function of proximity is relating things. Following this logic, we posit that proximities may be positively related to firms' environment engagement, while different proximities (ESAs or Central urban areas) influencing firms via different pathways. Comparing to their counterparts reside in ordinary areass, corporates proximate to ESAs usually incurs more attention and concern from governments, residents and ENGOs, which urges such firms to commit more to environment protection practice (DeBoer et al.., 2017). Therefore, we argue that firms proximate to ESAs bear more institutional pressures, including regulatory pressure, normative pressure and mimetic pressure.

Firms close to ESAs are usually under more rigid inspections from government and environmental authorities. Due to the importance of ESAs, those firms usually are restricted by specific legislations such as Environment Protection Law, while the sanction is much more rigorous. In addition to regulatory pressure, firms near ESAs usually draw more attention from publics and ENGOs, which put normative pressure on firms. For the sake of concerning about the sacrosanct environment, those stakeholders will require more environmental engagement from firms proximate to those places, which is so-called "environmental legitimacy" [10]. To obtain normative legitimacy from those external stakeholders, firms will engage in environmental protection actions more, hence those firms close to ESAs will do more environmental protection practices. We summarize these observations in the following propositions.

Proposition 1: Firms proximate to ESAs usually suffer a higher level of regulatory pressures in environmental protection, and hence perform more green behaviours.

Proposition 2: Firms proximate to ESAs usually suffer a higher level of normative pressures in environmental protection, and hence perform more green behaviours.

Besides regulatory and normative pressures, firms' actions are also influenced by mimetic pressure, which derives from local shared frames of reference or community ideologies [14]. Therefore, firms may take the other local firms as their action references, while this local could be extremely 'local' [15]. Obviously, those firms close to focal firms are also geographically proximate to ESAs, hence they also suffer regulatory and normative pressures like focal firms do, more or less. In the other words, those non-mimetic pressures also influence actions of the other local firms while shaping focal firms' green behaviours, and eventually strengthen the local cultural cognition and mimetic pressure of focal firms. We summarize these observations in the following propositions.

Proposition 3: Firms proximate to ESAs usually suffer a higher level of mimetic pressures in environmental protection, and hence perform more green behaviours.

3.2. Proximity to central urban areas and corporate green behaviors

As discussed above, the central urban area usually hosts most of government, population, media, universities, NGOs and trade unions [16]. Besides, those central urban areas are generally provincial capitals, such as Nanjing, Hangzhou; or possess advanced pro-environmental local policies, such as Shenzhen, Shanghai. Therefore, we posit that proximity to central urban areas fosters firm's green behaviours, via regulatory pressure, normative pressure and mimetic pressure, as well. However, there may be some subtle differences between those mediate mechanisms.

In regulatory pressure, we argue that firms near central urban areas also bear stronger legislator supervision, however, those pressures mostly come from local government and environment authorities, with the purpose to boost local environment. The spatial closeness reduces transportation cost significantly; hence it's easier for local law enforcer to inspect nearby firms. Hence, we raise the following proposition.

Proposition 4: Firms proximate to central urban areas usually suffer a higher level of regulatory pressures in environmental protection, and hence perform more green behaviours.

Different from normative pressures derived from PESA (proximity to ESA), firms that proximate to central urban areas are under more frequent scrutiny from local communities, ENGOs, media, etc.

Consistent with the logics of regulatory pressure, we argue that normative pressure is positively associated with geographic proximity, even more. Those stakeholders, who generate normative pressures, usually prefer or have more opportunities to show their concerns on those nearby firms [17]. Those stakeholders will keep a close eye on those firms, urging them to perform more 'greenly'. Hence, we raise the following proposition.

Proposition 5: Firms proximate to central urban areas usually suffer a higher level of normative pressures in environmental protection, and hence perform more green behaviours.

In its proximity to central urban area, a firm will be certainly affected by surrounding firms, which are affected by central urban area, as well. Therefore, a firm will be influenced by regulatory and normative forces indirectly while imitating nearby firms, performing toward the direction favoured by those pro-environmental stakeholders. We summarize these observations in the following propositions.

Proposition 6: Firms proximate to central urban areas usually suffer a higher level of mimetic pressures in environmental protection, and hence perform more green behaviours.

3.3. Corporate green behaviors in the presence of two proximities

In the above, we discuss how corporates perform green behaviours in the presence of sole proximity, either proximity to ESAs or proximity to central urban area. Due to the constraint of corporate attentions (resources) and overlap of some stakeholders, we expect an overall substitutive effect between the two proximities.

In regulatory and normative pillars, we argue that stakeholders will draw firms' attentions toward different directions, the national level stakeholders will require firm to input more toward protecting their sacrosanct environment while local stakeholders care more about their surrounding environment, since ESAs are relatively remote. In mimetic pressure, we posit that the sum of local firms will be less than simple addition of the local firms in two proximities, since there would be somewhat overlap in 'local' areas and firms. We summarize these observations in the following propositions.

Proposition 7: Proximity to ESAs and proximity to central urban area will show a substitutive effect on influencing corporate green behaviours.

3.4. A model of how proximities affect corporate green behaviors

Based on the previous analysis, we build our conceptual model. As the model shows, location decides a firm's geographic identity (proximity to ESA or to central urban area), while the two proximities shaping a firm's green behaviours via different institutional pressures. It is worth mentioning, the institutional pressures originate from two proximities will show competitive effect in their demands, hence when a firm occupies both of the two proximities, its green behaviours would be no greater than the addition of previous performance, considering the overlap of local firms and constraint of focal firms' attentions and resources.

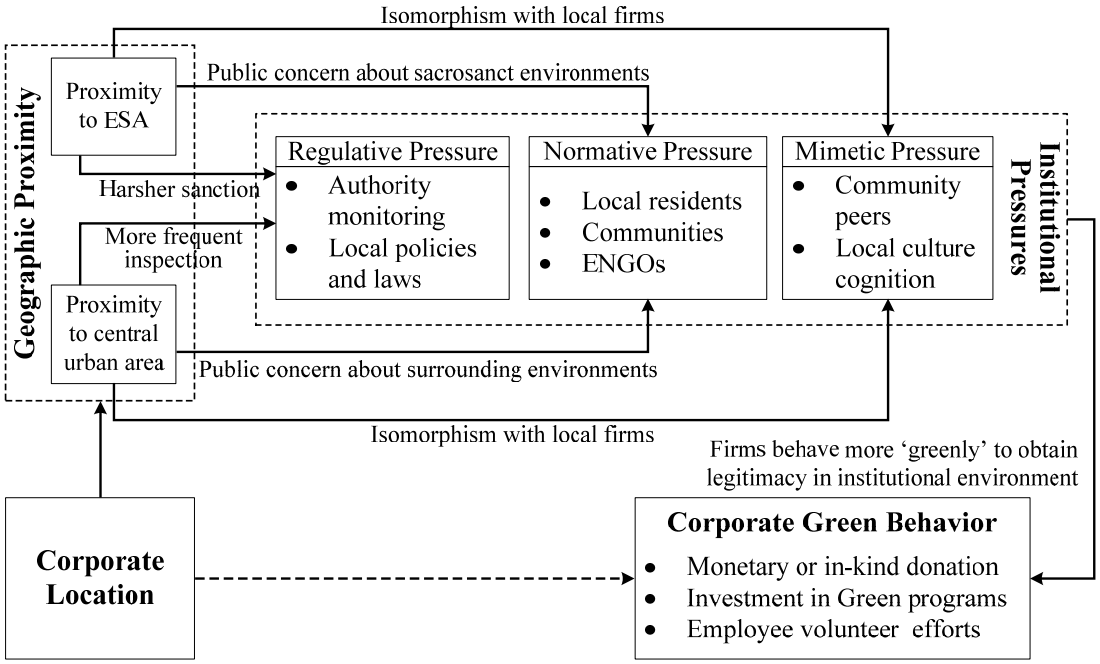

Figure 1. A conceptual model of how proximities affect corporate green behaviours

4. Conclusion and implication

In this paper, the inner mechanisms of how proximities influence corporate green behaviours are explored. Draw on neo-institutional theory, we contend that institutional pressures play a key role in this link, while different proximities may incur different institutional logics, leading to the competitive and substitutive consequences when firms face two proximities at the same time. Based on those findings, we suggest that stakeholders at different level should enhance their cooperation and synergy. National environment authorities and local governments should build cooperation relationship to ensure target firms perform better in environment engagement. Besides, ENGOs in town should communicate with local residents, and adjust their target towards local residents when necessary. For corporates, we suggest that firms should pay more attention to the legitimacy signals in surrounding circumstances, while engaging environment protection based on their capabilities and resources.

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