

A Process Model of Building Sustainable Competitive Advantage for Multinational Enterprises: An Empirical Case Study

Model procesu budowania zrównoważonej przewagi konkurencyjnej dla przedsiębiorstw międzynarodowych: studium przypadku

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Abstract

Multinational enterprises (MNEs) are the leading entities in the process of global economic integration, whose international expansion would be regulated and constrained by environmental issues. Drawing on theories of corporate social responsibility, corporate environmental behavior and legitimacy, this paper establishes a grounded process model that has both theoretical and practical significance. The model reveals that development of sustainable competitive advantage of MNEs is a gradual process that is dependent on the corporate environmental behavior and the legitimation of their behaviors. Via a real in-depth case study of Badische Anilin-Soda-Fabrik (BASF), one of the largest chemical companies in the world, the application and effectiveness of the proposed process model are demonstrated. Also, implications of this model and future directions for both research and practice are indicated.

Key words: multinational enterprises (MNEs), corporate social responsibility; corporate environmental behavior, corporate legitimacy, sustainable development

Streszczenie

Przedsiębiorstwa międzynarodowe stanowią wiodące podmioty w procesie globalnej integracji gospodarczej, których ekspansja międzynarodowa powinna uwzględniać regulacje i ograniczenia związane z ochroną środowiska. Niniejszy artykuł, opierając się na teorii społecznej odpowiedzialności biznesu, jego wpływowi na środowisko i legalności działania, przedstawia model istotny zarówno z poziomu teorii, jak i praktyki. Model ten pokazuje, że budowanie zrównoważonej przewagi konkurencyjnej przedsiębiorstw międzynarodowych jest procesem stopniowym, zależnym od podejścia do środowiska. Zastosowanie i skuteczność proponowanego modelu wykazano na

przykładzie jednego z największych zakładów chemicznych na świecie, którym jest Badische Anilin-Soda-Fabrik (BASF). Zaproponowano także przyszłe kierunki badań, tak w kontekście naukowym, jak i praktycznym.

Słowa kluczowe: przedsiębiorstwa międzynarodowe, społeczna odpowiedzialność biznesu, wpływ biznesu na środowisko, legalność biznesu, rozwój zrównoważony

1. Introduction

Global issues, such as climate change, global warming, poverty and biodiversity loss, increasingly impact our daily life. Nowadays environmental protection is a critical issue for firms throughout the world in the continuous pursuit of sustainable development in a long run. Confronted with increasing constraints of natural resources and the new situation of universal advocating low carbon economy, firms are required to comply with the global economic integration and sustainable development and to establish unique firm-specific advantages (Kolk and Pinkse, 2008). Sustainable development has twofold meanings. First, it applies to the firm level strategies. If a firm can strive to keep superior long-run business performance in the fierce marketplace with inimitable, durable and non-substitutable organization structure, strategies of the firm is sustainable (Oliver, 1997; Teece, 2007). On the worldwide level, sustainable development is equal to World Commission on Environment and Development's (WCED) definition, i.e., *development that meets the needs of the present without compromising the abilities of future generations to meet their own needs* (WCED, 1987). The objective of sustainable development is to improve the quality of life of ourselves and our offspring on a global scale (Wołczek, 2014).

Firms are required urgently to contribute to a sustainable development both on the firm and worldwide level, which applies most notably to multinational enterprises (MNEs), given their global production, resources exploitation, sophisticated technologies and thus their global influences to the world (Kolk and van Tulder, 2010). MNEs should respond to pressures for global integration and local responsiveness with respect to corporate social responsibility (CSR) issues, especially environmental issues in order to obtain local legitimacy in their internationalization process, which combines the global and local resources and capabilities for development. Environmental regulations from both home and host countries as well as consumers' demand, require MNEs to take appropriate response to environmental issues. MNEs are expected to not only take advantage of the local resources and opportunities, but also take the position of leading the world technological development by exporting to or spilling their technology ownership advantage over local firms to help in enhancing the local companies' capabilities in clear technologies. In order to manage the legitimacy in the host market while achieving better consequences of financial benefits and sustainable competitive advantage, alternative behaviors should be considered.

Although there is no consensus on the relationship between MNEs' expansion and the increasing environmental pollution, it is widely accepted that taking corporate social responsibility, including environmental responsibility, will help in keep corporate reputation, and support the sustainable development in the long run. Therefore, it is critical to identify the mechanism underlying the MNEs' environmental strategies and their sustainable development. The objective of this study is to build a general model of how to build sustainable competitive advantage in host countries through legitimacy for MNEs. Our research questions are why we need to pay special attention to the MNEs' social responsibility and how MNEs can establish its sustainable competitive advantage through taking CSR and obtaining legitimacy.

In this paper, we argue that as the leaders in the global economic integration process, MNEs are expected to take the most important role of leading the technological development of clear production, energy conservation and emission reduction and green management in the worldwide. Further, we argue that both home and host countries' environmental regulations and stakeholders' pressure as well as the chief executive officers' (CEO) personal belief would have enduring effects on MNEs' environmental behaviors. Through the positive effect on the firms' legitimacy, MNEs are more likely to build up their sustainable competitive advantage over the long term. In other words, the MNEs, which focus on the firms' strategic coevolution with natural environment and expressing their commitment to natural environment, will be considered more legitimate than those only focusing on financial benefits. Thus, the sustainable competitive advantage would be established consequentially.

The rest of this paper is organized as follows. Section 2 gives a brief review about the MNEs and the obligations of taking CSR in the global environments. The basic concepts of corporate environmental behaviors and its triple-dimensions as well as influencing factors are presented in section 3. The definition of corporate legitimacy and its discriminative three dimensions with typical examples of MNEs are recognized in section 4. In section 5, a process model of building sustainable competitive advantage for MNEs based on internal behavior and external legitimacy is developed. Finally, an illustrative case is given in section six to show the effectiveness of the proposed model and some conclusions and future research directions are provided in section 7.

2. MNEs' corporate social responsibility

2.1 Why MNEs?

Critics assert that globalization of MNEs harms the host countries as it allows re-location of polluting industries in host markets, especially emerging markets. on the contrary, it is also the case that globalization of MNEs increase the self-regulation pressures on firms in host countries with lower level of environmental regulations via global ties (e.g., Christmann and Taylor, 2001) and technological spillovers. Nevertheless, it is widely accepted that MNEs and their products are the enduring important sources for domestic firms to improve the efficiency and competitiveness in the global markets (Chen and Chung, 2014). Compared to traditional companies, MNEs own more sophisticated technology of energy conservation and emission reduction and environmental management systems, whose strong innovative capabilities can always distinguish them from others. Due to their ownership advantage, as argued in the Dunning's ownership-location-internalization (OLI) eclectic paradigm (Dunning, 2001), MNEs can transfer their innovative capabilities from parent companies to the foreign subsidiaries in the host markets. Thus, they would be able to continue their research and development activities and exploit their parent company's research and development (R&D) capabilities and management technology.

There are three remarkable reasons why MNEs should take certain environmental responsibilities in a worldwide are as follows. First, MNEs usually dominates the heavy pollution industries, such as chemicals, petroleum, biopharmaceuticals and other related manufacturing industries, which contaminate the environments heavily. Second, MNEs are usually involved in the institutionalization of international environmental initiatives and standards, like ISO 14001, and they are required to make greater commitment in the compliance with these policies and standards (e.g., Bansal and Hunter, 2003; Delmas, 2001). Finally, as the major actors in the process of global economic integration, MNEs are required to produce output of their key capabilities and also diffuse their advanced environmental practices to their production operations dispersed around the world, or even to local firms in host markets with spillover effects (Rugman and Verbeke, 1998a; Tian, 2007; Wei and Liu, 2006) in order to establish their sustainable competitive advantage for global expansion.

2.2 MNEs' corporate social responsibility

The consumers' increasing demand for environmental protection will inevitably increase the pressure for firms to corporate social responsibility (CSR) regarding to environmentally friendly production and service. In the welfare economics perspective, CSR is defined as the firm's obligation to respond to the externalities created by market action (Costa and Menichini, 2013). MNEs' CSR is highlighted to re-

flect the ever changing public attitudes about their social obligations (Luo, 2006), as they are considered as playing a specific role given their global influence and activities both in home and host countries (Kolk and van Tulder, 2010).

However, MNEs can be social responsible and irresponsible (Strike et al., 2006). There are two streams regarding to the relationship between MNE's international diversification and their social responsibility. Pessimists believe that MNEs are in the pursuit of lax social and environmental standards in foreign markets, especially in emerging markets (Low and Yeats, 1992). Global diversification allows location of polluting industries in countries with lower environmental regulations (Christmann and Taylor, 2001). Optimists argue that MNEs would transfer their best practice of clear production technology in energy conservation and emission reduction and environmental management across geographic boundaries (Bansal and Roth, 2000; Christmann, 2004), which helps in improving the local firms' environmental technology and management, as well as the environmental standards.

MNEs can get sufficient accesses to resources and markets via business expansion into foreign countries, including relatively lower cost labor, preferential policy from local government, and exploitation of natural resources in the host markets. However, values can be created only if MNEs' goods, service or their activities are able to provide extra benefits and contribute to the quality of life, knowledge, and safety of firm's stakeholder (Haksever et al., 2004) and the business returns from CSR depend heavily on how stakeholders perceive the company CSR commitment (Costa and Menichini, 2013).

It has been argued that MNEs have been pushed toward higher levels of CSR due to global and institutional pressures (Sharfman et al., 2004). Many researchers focus on the impacts of MNEs on the natural environment, as a lot of MNEs dominate pollution-intensive industries and they seek for the off-shore pollution havens which generate significant cost-related benefits (Rugman and Verbeke, 1998b). MNEs' environmental responsibilities are related to various factors, including host-county government regulations, peer monitoring, media attention and local consumers' preferences for environmentally friendly products.

3. Corporate environmental behavior and the influencing factors

3.1 Definition of corporate environmental behavior

Environmental behaviors apply to individual and corporate level separately. Yet, there is no consensus of the definition of corporate environmental behavior. For example, Sarkar (2008) defined corporate environmental behavior as *the set of strategies deployed by a firm to manage its business-environment interface, whether as a response to external pres-*

asures or as a proactive measure to mitigate its environmental impact. Pro-environmental behavior refers to behavior that harms the environment as little as possible, or even benefits the environment (Steg and Vlek, 2009, p. 309). The pro-environmental behavior of the individual level includes behaviors of *segregating waste, buying health food, avoiding buying certain products, reducing exhaust gas emission, saving energy and water* (Rydzewski, 2013, p. 130). Bansal (2005) defined corporate environmental management as *an effort by firms to reduce the size of their ecological footprint*. Among these previous literature, similar concepts like corporate environmental management, corporate environmental behavior, pro-environmental behavior or corporate green behavior appear to be the similar connotation. Therefore, in this paper, we adopt all these related concepts for corporate environmental behavior (CEB) and we will focus on the corporate level environmental behavior.

3.2 The triple-dimensions of CEB

There are various taxonomies developed to describe corporate environmental management, from the most reactive postures to the most proactive ones (Aragón-Correa, 1998). Similarly, CEB can be divided into different dimensions according to the firms' responsiveness. Aragón-Correa and Sharma (2003) and Moon (2008) argued that CEB has two distinguished responsive features, i.e., proactive or reactive. From coercive to proactive responsiveness, three dimensions of defensive, preventive and enthusiastic CEB are defined in Liu's (2009) study on the relationship between external environmental pressure on firms and their environmental behavior of 321 sample firms in the Yangtze River Delta of China.

In this study, we will follow Liu's methods in defining the triple-dimensions of CEB (see Figure 1). Defensive CEB refers to behaviors of abiding the coercive environmental regulations and policies. Without the external fines or penalties on environmental pollutions, firms will not go beyond the economic performance. Defensive CEB includes ignore environmental requirements of suppliers, purchase environmentally sensitive products, no special environmental department, no cleaner production auditing, waste disposal at a venture, or excessive use of natural resource.

Preventive CEB points to the firms' behavior that they seek to forecast the future environmental regulations and conduct internal detection and evaluation on their environmental effects in order to avoid environmental accidents. Preventive CEB can be exhibited as purchase environmental-friendly raw materials, achieved ISO 14000 authentication, established environmental management system, reduce emissions, meet environmental requirements of its suppliers, and recycle its byproduct.

Enthusiastic CEB suggests a strong linkage between the environmental protection and corporate competitive advantage. The firms taking enthusiastic CEB are in sake of ecological responsibility and will first adopt clear production technology and promote the philosophy of energy conservation and emission reduction in the industry. Enthusiastic CEB can be priority purchase environmental-friendly raw materials, provide environmental training to employees, have environmental protection devotion, environmental cooperation with its suppliers or conduct resource-saving technical innovations.

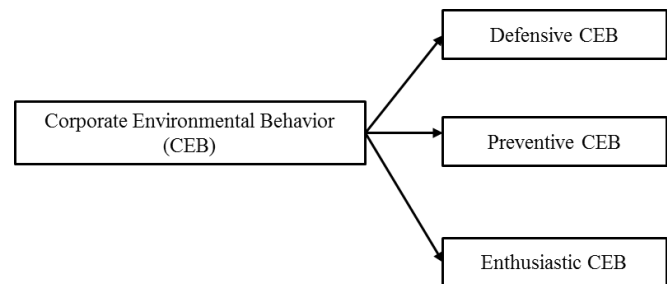


Figure 1. Triple-dimensions of corporate environmental behavior

3.3 Influencing factors of CEB

There are various factors influencing the firms' willingness to participate environmental programs voluntarily and driving the firms to take environmental behaviors. We classify the factors into external and internal (Claver et al., 2007). External drivers include environmental regulations and stakeholders' demands (we focus on the immediate consumers' demands) and internal factors include corporate strategy and CEO's personal belief (see Figure 2).

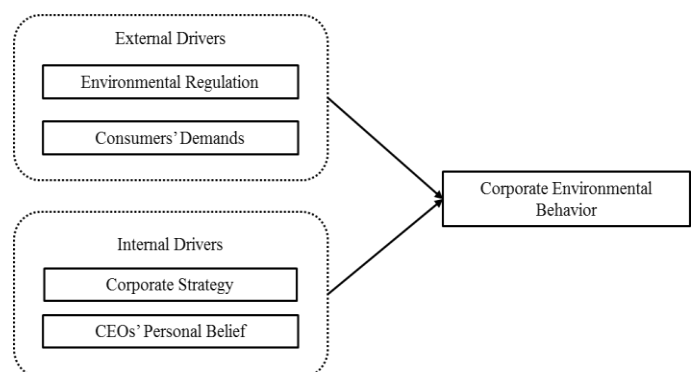


Figure 2. A preliminary model of influencing factors of CEB

External environmental regulations and corporate stakeholders' demands would affect the company's certain routine operations via formal norms and informal pressure. As the companies run in the real world with constant changing of customer needs, technologies and processes, a dynamic view of external factors should be adopted. It is suggested that properly designed environmental regulations can trigger innovative solutions to environmental issues

(e.g., Delmas et al., 2007; Lee et al., 2014; Porter and van der Linde, 1995) and unique organizational capabilities (Sharma and Vredenburg, 1998). For example, in order to comply with new regulations to reduce solvent emissions by 90 percent, 3M Corporation was forced to find a way to avoid the use of solvents altogether by coating products with safer, water-based solutions, and thus benefited in production efficiency (Porter and van der Linde, 1995; Shrivastava, 1995a).

Internal drivers of CEB are always related to the organizational and the managers' features. Some organizations are born to be environmentally responsible firms because of the founders' personal belief. This kind of firms can be called ethically motivated firms (Bansal and Roth, 2000). The founders' and top management teams' beliefs and corporate values are the key instruments in driving the firms to take appropriate corporate environmental behaviors.

Bansal (2005) pointed out that institutional theory is related to corporate sustainable development for three reasons. Firstly, an organization's commitment to sustainable development is judged on personal belief and value system, which impact the public's degree of acceptance and perception of legitimacy of the organization (Bansal and Roth, 2000). Secondly, participants of differentiate views of sustainable development will build norms and common beliefs. Finally, the components of sustainable development are institutionalized in the process of regulation and internationalization. MNEs are more likely to manage their environmental strategies and CSRs according to the institutional pressures rather than a strategic logic (Husted and Allen, 2006).

Among the previous literature on the sustainable development and competitive advantage, most of them either only take internal resources into consideration, or merely take institutional factors into account (Bansal, 2005; Oliver, 1997). There is a lacking of literature integrating both. Therefore, in the next section, we draw on the institutional theory, i.e., legitimacy, to argue about the formulation mechanism of MNEs' sustainable competitive advantage on the basis of their environmental strategies and corresponding environmental behaviors.

4. Legitimacy

4.1 Definition and dimensions of legitimacy

Past decades have witnessed increased interest in institutions (Kolk and van Tulder, 2010), such as an institution-based view of international business (IB) strategy (Peng et al., 2008), and the co-evolution of MNEs and the institutional environment (Cantwell et al., 2010). Institutional theory emphasizes the social environment where firms operate. A central concept in institutional theory is legitimacy (Peng and Beamish, 2007). From the perspective of institu-

tional theory, legitimacy is the organization's approach of obtaining and maintaining resources (Oliver, 1991), which is the objective behind the congruence of organizational and stakeholders' expectations (DiMaggio and Powell, 1983; Meyer and Rowan, 1977; Suchman, 1995).

There is no consensus about the definition of legitimacy in the academia. It is described by Dowling and Pfeffer as *a condition or status which exists when an entity's value system is congruent with the value system of a larger social system of which the entity is a part* (Dowling and Pfeffer, 1975, p. 122), where it highlights the cultural conformity between the organizations and social values. Kaplan and Ruland (1991) assigned legitimacy as a process of obtaining recognition of the community. Aldrich and Fiol (1994) argued about two types of legitimacy, i.e., cognitive and sociopolitical legitimacy confronted by entrepreneurs in emerging industries.

In this paper, we adopt the most acceptable definition of legitimacy proposed by Suchman (1995). It is defined 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* (Suchman, 1995, p. 574).

4.2 Dimensions of legitimacy and MNEs

In Suchman's (1995) study, three types of legitimacy are recognized: pragmatic legitimacy, moral legitimacy, and cognitive legitimacy with a generalized assumption of this definition. In this section, we will dilate on the signification of three dimensions of legitimacy and provide examples of MNEs.

Pragmatic legitimacy points to the self-interested calculations of the most immediate audiences' preferences. Organizational activities affect the interest of the audiences, their choices and thus the organizational financial benefits. There exists exchange relationship between the organization and audiences. No matter the products or service is good or bad to the environment, audiences would provide support to MNEs as long as they are paid back with interest of themselves. MNEs are perceived as legitimate when the audiences' self-interests are satisfied via any kind of approach of MNEs. For example, in early 1990s, OJI Paper Co., Ltd, a Japanese papermaking company, entered Chinese markets and set up its own subsidiaries for manufacturing. At that time, the environmental pollution issue was not serious enough to get attention from the host governments, which emphasized economic development over everything. OJI's entrance enhanced the local production and GDP, and provided employment opportunities to the native labors, thus it was conferred pragmatic legitimacy and paid with great financial revenue without clear technologies being considered.

Moral legitimacy results from the audiences' normative evaluation or judgment of whether the company does a right thing in the local markets. Audiences'

evaluations of the consequences, procedures, structures and leaders' charisma comprise the four sub-dimensions of moral legitimacy (Suchman, 1995). In this regard, local consumers start to concern about the normative contributions of the firms and the firms' routine procedures are always criticized on their impacts to the environment. At the initial stage, MNEs' products are popular with the local customers, owing to their country of origin (Bilkey and Nes, 1982), which has a considerable influence on the quality perceptions of the technology or products (e.g., Ramachandran and Pant, 2010). However, with increasing consciousness of their own health and surrounding environment quality, local customers become nitpicking and tend to prefer green products and service that are friendly to the environment, not just so-called *foreign goods*. For example, British Petroleum (BP), a global MNE, makes clear the organization's responsibility to detect and respond effectively to local needs and its compliance with the local law and regulations: *We will respect the law in the countries and communities in which we operate. This will include competition and antitrust laws and the Foreign and Corrupt Practices Act. Where the law is unclear or conflicting, we will take expert advice and always seek to act in accordance with these communities* (Logsdon and Wood, 2005, p. 61).

Cognitive legitimacy is based on the audiences' cognition about the firms' behavior, with positive, negative or no evaluation, which is based on comprehensibility and taken-for-grantedness. Cognitive legitimacy suggests the coherence between organizational behavior of the firms with social culture and value system. Bansal and Roth (2000) argued that companies should not only comply with formal environmental regulations, but also with informal environmental regulations, like cultural regulations. For example, Dupont Corporation has always been considered as the leader of chemical industry by the local governments and environmental protection organizations in China. Its cognitive legitimacy lies in that it always incorporates the social culture and preferences into its strategies to formulate the industrial standards.

Actually, pragmatic, moral and cognitive legitimacy are not independent from each other but co-exist for most of the companies in real life. For a firms moving from pragmatic legitimacy to moral to cognitive legitimacy, it becomes more and more difficult to attain and maintain, and in return it's not easy for others to imitate (Suchman, 1995). Once cognitive legitimacy is obtained, the company is building up its unique core competence and competitive advantage (Prahalad and Hamel, 1990).

MNEs' worldwide operations are not only strategic but also institutional. By distinguishing global from local CSR, Husted and Allen (2006) suggested that MNEs are affected by institutional pressures for integration and responsiveness from their immediate

stakeholders to conduct their decision-making process with respect to CSR. Legitimacy arising from institutional theory provides a fresh perspective and insights into the MNEs' building sustainable competitive advantage.

Customers perceive MNEs with legitimate organizational behaviors as more worthy, meaningful, predictable and more trustworthy (Suchman, 1995), and in a long run, they would like to pay more for the responsible products and service, which are expected to be the standardized ones in the markets. Customers would prefer the certain product or service of this kind of legitimate MNEs, or even only buy the product or services designed in this way. Therefore, MNEs achieve their cognitive legitimacy among the customers, which is taken-for-granted, i.e., they are supposed to be the common standard.

5. A process model of sustainable development for MNEs

Traditional resource-based view (RBV) theory sees a corporate as a bundle of resources and capabilities (Barney, 1991; Fahy, 2002; Wernerfelt, 1984), but overlooks the capabilities required by the ever changing environment (Eisenhardt and Martin, 2000; Oliver, 1997; Teece et al., 1997). Firms cannot always expect rent-seeking by merely owning and controlling resources in the host markets. Dynamic capabilities approach is an extension of the RBV theory to explain how a firm can develop their distinctive capabilities to adapt to and even capitalize on the changing environment (Montealegre, 2002; Teece et al., 1997). MNEs should look at the impact of their business on the environment, societies and the economies where they operate. Host country environment constrains but also provides with opportunities for further development.

In this way, dynamic perspective suggests a sequential approach for establishing a process model of building up the sustainable competitive advantage. In this section, we propose a grounded process model of how MNEs establish their sustainable competitive advantage via legitimacy in the host countries. The process model can be divided into four phases, starting from the corporate strategy making, then focusing on implementing the strategy, institutionalizing the strategy, and finally obtaining their consequences of building sustainable competitive advantage as well as financial benefits (see Figure 3).

One thing should be noted that corporate environmental behaviors and the corporate legitimacy are changing over time to keep coherent with the host country surroundings. Therefore, flexible and dynamic resources and capabilities are premise and foundation during the whole process of achieving legitimacy and sustainable competitive advantage subsequently.

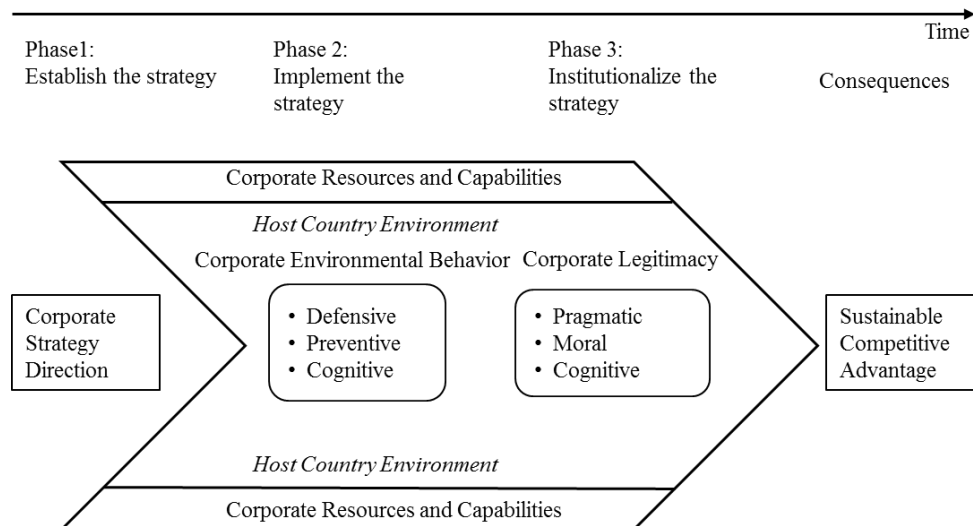


Figure 3. Process model of building sustainable competitive advantage for MNEs

5.1 Phase 1: Establishing the corporate strategy direction

MNEs expand their business all over the world with certain corporate objectives. Three basic types of motivation for ecological responsiveness are recognized, i.e., competitiveness, legitimation and ecological responsibility (Bansal and Roth, 2000). No matter for economic opportunities or just CEO's personal belief, corporate strategy direction is set first before any behavior or action could be taken further.

5.2 Phase 2: Implement the strategy

Given the corporate strategy direction, MNEs should implement the corporate strategy in this stage, taking defensive, preventive or cognitive environmental behaviors according to the strategy. Take ISO 14001 authentication for example, Delmas (2001) suggested that a firm's external stakeholders' involvement into the process of ISO 14001 standard will help in establishing a valuable organization capability. Moreover, ISO 14001 certification can be the best way of pursuing competitive advantage (Orsato, 2006), as it signals to the stakeholders of the organization's change in strategic positioning (Bansal and Hunter, 2003). It is found that firms of early adoption of ISO 14001 would have considerable environmental legitimacy (Bansal and Hunter, 2003).

5.3 Phase 3: Institutionalize the strategy

In this stage, on the basis of corporate environmental behaviors, the firms can obtain their pragmatic, moral, cognitive legitimacy or total. From the perspective of easiness of obtaining and maintaining, pragmatic legitimacy is considered the easiest to obtain and maintain, following moral and finally cognitive legitimacy, which is the most difficult level to obtain. MNEs satisfying the local market demands and preferences can own pragmatic legitimacy, whereas, it's not the case for moral and cognitive legitimacy as these two dimensions are more related to

cultural issues and local backgrounds (Suchman, 1995). For example, a firm obtains cognitive legitimacy as it is deeply familiar to and is accepted by the public audiences. Its product or service is the first thought of public audiences. However, this firm does not necessarily obtain moral legitimacy at the same time probably because the product or service it provides is not suitable for juveniles, such as alcohol.

There are twofold benefits of achieve legitimacy for MNEs, i.e., strategic and institutional. Strategic legitimacy helps MNEs mobilize resources to garner societal support and hence increase the financial benefits. On the basis of strategic legitimacy, MNEs are supposed to be institutionally legitimate as their ownership advantage in environmental technology and management systems should be diffused beyond their own boundaries to the local firms in the host markets for maintaining social sustainable development. As the leading actors in the process of global economic integration, MNEs are the most financially beneficial owners and the contributors at the same time due to their ownership advantage according to Dunning's OLI paradigm. Institutionally legitimacy generates responsible sense of environmental pressure to take appropriate environmental behaviors. Their practices are more likely to become the first standard of the industry.

5.4 Phase 4: Consequences

Organizations that appear desirable, proper, or appropriate are most likely to be supplied with resources. Bansal and Clelland (2004) argued that environmentally legitimate firms are confronted with less risk in the stock market than illegitimate firms. When the firms' performance with respect to the natural environment conforms to the stakeholder's expectations, the firms would earn environmental legitimacy. In this stage, legitimacy can help MNEs to earn a *license to operate appropriately* (Parsons et al., 2014) in host markets. Thus, sustainable compet-

itive advantage in terms of enduring financial revenue, technological innovation, new products and services with local customers' demands incorporated is well established. MNEs benefit from ecological efficiencies by reducing cost of waste disposal, capturing the emerging green markets with first-mover advantage and improving the social image via better legitimacy obtained from the community (Shrivastava, 1995b).

Nonetheless, it does not mean that MNEs can rest on the final sustainable competitive advantage. The process would evolve to the next cycle of the companies, starting with establish a new corporate strategy and directions for future implementation in the ever changing host environments. What's more, the companies' strategies and level of legitimacy keep changing over time due to their involvement in environmental protection. With the dynamic evolution in local regulations, customers' preference and even technologies change, the sustainable competitive advantage of MNEs would not keep constant permanently. Then the process will evolve into a new cycle of achieving new sustainable competitive advantage. In the initial stage of expansion, consumers might be just curious about the new products or services provided by MNEs, which they have not encountered in the home country. With their consciousness changes, they are not happy with what they have already experienced, thus they desire for higher level of environmental responsibility for the MNEs.

6. Empirical case study

6.1 Overview of BASF

Given MNEs' global influences to the world and their dominate positions in the heavy industry, in this section, we will apply the proposed process model in previous part to the case of Badische Anilin-Soda-Fabrik (BASF), a Germany chemical company founded in 1865. Specifically, we focus on the evolution of the sustainable competitive advantages enjoyed by BASF in relation to corporate legitimacy, which was obtained via appropriate corporate environmental strategies and behaviors in China. China is the leading emerging economy, which desires for clear technology and mature green management practice spillover from MNEs of high sophisticated technologies. Moreover, Chinese government endeavors great effort in improving environmental quality and exerts strong regulations on industrial pollutions. In the context of China, BASF is confronted by both of home and host environmental constraints.

The information for this case study is all from company annual reports and documents, published descriptions of its environmental technologies, management system and programs, and any related things available from the company website. It should be pointed out that despite of the positive description

of BASF in this proposed process model, the company is by no means perfect on all environmental issues (Shrivastava, 1995a). Along with each stage production process, environmental burdens are certainly generated. Moreover, as the data sources are nearly all from the company's self-descriptions, we cannot guarantee the materials without bias due to self-evaluation problems. Yet, BASF is leading the environmental technologies and even visions in the domain of chemistry and other related and it has achieved competitive advantage in some degree.

BASF is the largest investing company of chemical industry in Greater China district. The cooperation between BASF and China should date back to the year of 1885, when BASF mainly sold textile dye in the cotton market. In the year of 2013, BASF had sales revenue amounting to EUR 74 billion and it had 112,206 employees all over the world, among which the Greater China market contributed by EUR 5.48 billion and 7,606 employees. Table 1 shows a 5-year summary of BASF's financial data.

Table 1. BASF's 5-year financial performance ^a

Year	Sales	EBIT	No. of Employees	R&D	EPS
2013	73.973	7.273	112,206	1.835	5.27
2012	78.729	8.976	113,262	1.732	5.31
2011	73.497	8.586	111,411	1.605	6.74
2010	63.873	7.761	109,140	1.492	4.96
2009	50.693	3.677	104,779	1.398	1.54

^a Sales, EBIT and R&D in billions of Euros; EBIT refers to earnings before interest and taxes; EPS refers to earnings per share in Euros.

6.2 BASF's CSR programs and CEBs

As a globally operating company, BASF is always confronted by different legal systems and cultural conditions in different host countries, which requires it to continuously comply with the local and global environmental regulations and norms. BASF's strategic rules include *leading the sustainable development solutions*. It is stated explicitly in its annual reports that *the fundamental requirement for the BASF organizational activities are in the sense of sustainable development*. In Dr. Kurt Bock's view, the Chairman of the Board of Executive Directors BASF, *sustainability means aligning economic success with environmental and social responsibility. This will ensure our long-term business success*.

BASF has a wide range of product portfolio, consisting of chemicals, functional materials and solution, agricultural solutions and oil and gas, etc. It invests heavily in R&D in environmental protection and clear production technologies. Investment in environmental protection is 325 million Euros and 268 million Euros in 2013 and 2012 separately. In the product diversification and environmental changes, continuous innovation development and adoption of new technologies are ongoing. R&D expenditure in

innovation in the past 5 years increased from 1.398 billion Euros to 1.835 billion Euros, with an average increase rate of 7.04 percent.

Compliance with all legislation to protect human beings and the environment is one of the company's basic obligations for both legal and ethical reasons. This applies to BASF products as well as to its processes. It declares that waste must be disposed of in accordance with legal requirements. It is clear in one of their behavior code that *all applicable laws and regulations on environmental protection or plant and industrial safety must be fully complied with.*

The philosophy of BASF operation is to create chemistry for a sustainable future. BASF insists that *economic considerations do not take priority over safety and health issues and environmental protection.* The company produces products that are safe to manufacture, use, recycle or dispose in order to minimize the impact on humankind and the environment during production, storage, transportation, sale, use and disposal of its products. What's more, BASF encourages its employees to hold a high level of awareness of safety, health and environmental issues and strive for continuous improvement through agreed-upon objectives. In this way, each employee shares in the responsibility to protect human beings and the environment in his or her area of work.

In 2006, BASF was the first one of China Business Council for Sustainable Development to initiate a *1+3* CSR program, which is comprised of one initiator together with three other actors – supplier, customer and logistic service provider. With the increasing environmental pressure, the firm has begun to consider an environmental issues and the measurement of their suppliers' environmental performance (Humphreys et al., 2003). This program aims to pass on the best practice of CSR through the supply chain and drive the sustainable development of the whole supply chain. The snow-ball effect of this *1+3* CSR program enables the diffusion among and participation of over 130 companies in China, and being listed in the United Nations Global Compact Yearbook in the year of 2007 and 2009 separately, which is shared as the best CSR practice case. Moreover, BASF was the first industrial company in the worldwide to appoint its Chief Climate Protection Officer, and the first one who release its carbon footprint report in 2008. It is said that *reporting of any environmental, health, or safety related problems is the responsibility of every employee and it is also in the interest of the company.*

Green supply chain management is a good extension to the supply chain, which indicates the internal and external organization environmental management practices through the supply chain (Lee et al., 2014). In 2012, BASF co-sponsored a chemical industrial sustainable supply chain proposal – *Together for Sustainability*, with another 5 international leading chemical companies, intending to imply green sup-

ply chain management and standardize the self-evaluation and self-audit process of the global chemical industry. The company supports the efforts of its customers and suppliers in the safe and environmentally sound handling of the products that they receive from BASF and those products that BASF receive from them.

6.3 BASF's legitimacy and sustainable competitive advantage

One of BASF's vision is *We strive for sustainable development.* With the practices of environmental protection, management and innovation, BASF has been included in the list of the Dow Jones Sustainability Indexes (DJSI) for the 13th consecutive year in 2013, and has also been listed in Carbon Disclosure Program (CDP) Leader Index Global 500 for 9 times in succession. As in previous years, BASF leads the CDP Leader Index in the materials field. Finally, BASF obtains its sustainable competitive advantage in various aspects in terms of balances (see Fig. 4).

7. Discussion and conclusions

In conclusion, this article has proposed that the sustainable competitive advantage of MNEs is not simply a function of economic rent-seeking actions in the host markets, but depends more on the social responsibility strategies, which should be justified by external stakeholders in the form of legitimacy. In support of this premise, this article has combined both internal corporate behavior and external legitimacy perspective to develop a process model of building sustainable competitive advantage for MNEs. A key implication of this paper is that MNEs can mobilize internal behavior and external institutional legitimacy for long-run sustainable competitive advantage. Future research can examine both potential effects of internal and external factors on the sustainable competitive advantage.

Nowadays, MNEs are facing unprecedented pressing threats in doing business in worldwide with increasingly prominent resources constrains and environmental issues. They start to realize the need to balance economic and environmental performance (Lee et al., 2014). In this paper, we argue that MNEs should be able to take the social responsibility of leading the initiatives of sustainable development of host markets, owing to their ownership advantage of technology and management suggested in OLI paradigm. Further, in the process model proposed, we argue that through taking appropriate CEBs and then obtaining corresponding legitimacy, MNEs would establish their sustainable competitive advantage with financial benefits and technological spillover to local firms, which is more likely to be accepted as the industrial common standard. Via an in-depth case study of BASF in China, we find supports for the process model.

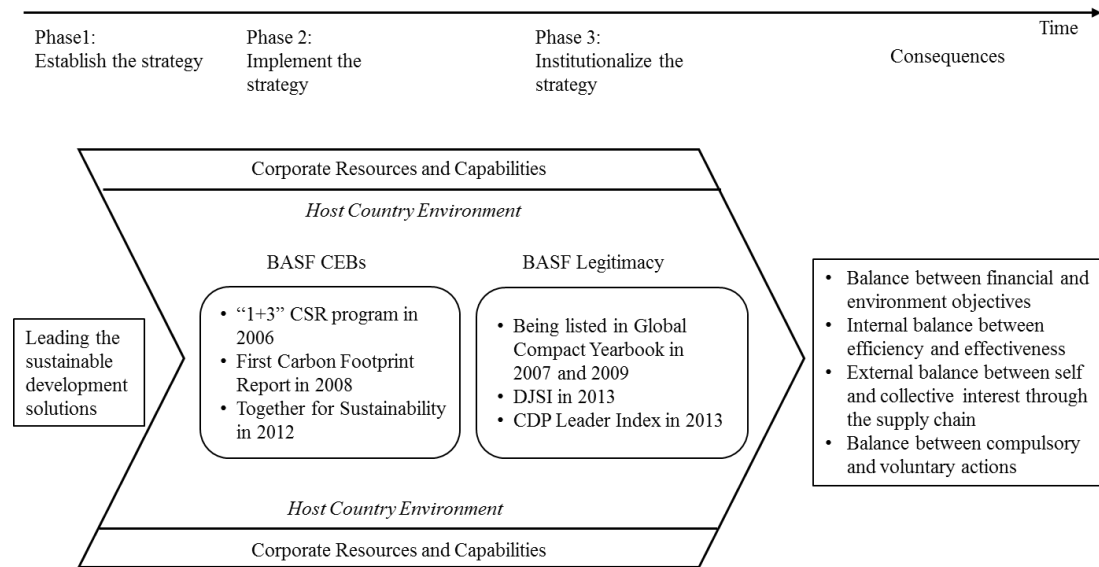


Figure 4. BASF's process of building sustainable competitive advantage

Fully successful implementation of MNEs' strategies are dependent on the resources, capabilities, consumers' demands and the overall societal preferences and evaluation or cognition. CSR represents a strategic opportunity as well as a set of obligations (Kolk and van Tulder, 2010) and MNEs are suggested to take advantage of their existing technology and management systems and explore new market strategies focusing on environmental protection. Other than meeting customers' demands, it is prevalent to create customers' demands via environmental strategy in the global process of achieving sustainable development.

This study contributes to the literature in threefold. First, it points to the important role that MNEs take in sustainable development due to their ownership advantage as suggested by the classical OLI paradigm. With disperse locations of their operations, MNEs have effects on the environmental issues both at home and abroad. The global nature of the environmental issue requires the MNEs take global CSR and local CSR into account (Husted and Allen, 2006). Second, building on the CEB conception, we define CEB into three dimensions, which shed light on the specific features of various motivations behind the CEB. Finally, legitimacy acts like a *license to operate* in host countries. In the MNEs' environmental campaign, strategic theory and institutional theory are combined together to provide insights into the formulation mechanism of MNEs' sustainable development and competitive advantage in the host countries.

We point to the generalization of the effects of MNEs' environmental behaviors on the legitimacy and finally the sustainable competitive advantage. Legitimacy is taken as mediation between corporate strategy and consequences in the process model, which can be assessed with empirical data in the future research agenda. Although we believe that our

conclusions can be generalized to other different types of organizations and various situations, future research can have a further exploration in different conditions. Empirical tests can also be conducted for the generalization and application of the proposed process model to other types of firms and situations in the future.

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