

AN EMERGING NICHE FOR FIRMS IN WESTERN REGIONS OF CHINA IN THE PERIOD OF TRANSITION ECONOMY TO DEVELOP RENEWABLE ENERGY INDUSTRY: A PERSPECTIVE FROM INSTITUTIONAL ENTREPRENEURSHIP

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Abstract: This paper explores the enabling role of institutional entrepreneurship in western regions of China in the context of transition economy. Considering the widely emerging concerns to develop environment friendly technologies and industries, which could contribute to the achievement of sustainable development both economically and ecologically, this paper proposes that western regions are standing in front of a great opportunity by stimulating development of the emerging renewable energy industry. In this process, institutional entrepreneurs under the massive institutional change, i.e., the Grand Western Development Program, could have the “path defining” effect through leveraging the emerging great niche and redirecting western regions to an innovative path instead of following the traditional resource-based development path.

Key words: Western Regions, China, transition economy, renewable energy industry, institutional entrepreneurship

1. INTRODUCTION

There have been many discussions about transition economy. And related researches in the context of China are not in a few cases. However, as Child (2007) illustrated there are still a few researches from the perspective of institution entrepreneurship in exploring related transition economy^[1]. In fact, there has been long a tradition among organization and management scholars to argue the question of “managerial intention”^[2]. While some of those scholars from strategic management fields have tried to prove the enabling role of management, regarding the actors to be a determined power to escape the constraint of institutions and to induce institution change^[3-6]. Other scholars mainly from institutional school insist on the embeddedness of entrepreneur in specific institution environment^[7]. The willingness, action and rationality of actors are all restricted by the institutional environment which they embedded into^[8]. Therefore there is the “paradox of embedded agency”^[9]. Though some scholars are turning their focus

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on the corporate strategy in transition economy, trying to combine the institutional perspective with strategic perspective^{[8][10]}, they neglect possibly the enabling effect of institutions on actors^[11]. Also, the enabling role of entrepreneur in transition economy is less explored. According to DiMaggio's (1988) research, less fully explored are endogenous sources of deliberate change, defined as "institutional entrepreneurship"^[3]. In fact, entrepreneur is constrained by the institutional environment they embedded; on the other hand, new institutional environment is formed by the action of entrepreneur.

Inspired by Lewin & Volberda's (2005) thought of co-evolution between corporate strategy and institution^[2], this paper speculates that specific institutional arrangement, such as institutional change in transition economy, could stimulate productive innovation of entrepreneurs. While the innovation activities of entrepreneurs at the same time could be helpful to the further transition of institution, turning to the direction of institutional innovation. In view of the lack of related researches in transition economy to the possible coincidence between economic transition and regional sustainable development, the key question of this paper is to explore how firms in western regions of China, under the background of transition economy, could revive economic development while at the same time reserve regional resources and environment, following a path of sustainable development instead of an extensive growth. Environmental issues have indeed received greater attention in strategic management^[12-15]. However, correspondent researches on exploring the contribution of micro level actors to the achievement of sustainable development in western regions of China in the context of massive institutional transition have been less considered.

As a response to what Child (2007) advocated, more research on institutional entrepreneur in transition economies^[1], the present paper contributes towards filling the gap in the existing literature through a study of what institutional entrepreneur can do in contributing to explore the renewable energy industry niche in Western Regions of China during the transition period. The next section briefly reviews theoretical perspectives that suggest a combination of macro level analysis from institutionalism and micro level analysis from entrepreneur research, which could be an improvement to the advice of Child (2007) to take account both of institution and firm strategy. In the third section, the expected emerging niche for renewable energy industry in Western Regions of China is analyzed by introducing the institutional entrepreneur perspective.

2. THEORETICAL PERSPECTIVES

Different paths have been explored by scholars from strategic management, institutional theory, regional economy, environment management, and many other disciplines to solve the problem of regional innovation and sustainable development. Despite of different insights from these disciplines, a common receipt of these arguments is the emphasis of a macro level perspective to the "planned" change, focusing on the up-down method in stimulating regional economic development, which reflects the logic of "planning school" in management science. However, relatively little has been done to explore enabling implications of the entrepreneur perspective in transition economy. As pointed out by McMillan & Woodruff (2002), "much of the task of devising the new ways of doing business in transition economies has been taken on by entrepreneurs"^[16]. In fact, in rapid changing dynamic environment, more and more management issues should be considered by following the logic of "emerging" power of actors in organizations, by which new institutions environment and new innovative activities are induced.

Recently, related research on institutional entrepreneur has raised great research interests in the field of management, organization and institutional theory^[17]. Considering the paradox of institutional change, institutional entrepreneur was put forward to be a method to solve this paradox^[1]. All these researches have disclosed the possible potential role of institutional entrepreneur in emerging industry. The organizational literature on emerging industries has emphasized the need for institutional entrepreneurs – actors who give the new activity legitimacy and determine its patterns of behavior^[18]. These people and organizations act as 'institutional entrepreneurs' – actors who create technical and

cognitive norms, models, scripts and patterns of behavior consistent with their identity and interests, and establish them as standard and legitimate to others^[18].

Institutional entrepreneurship refers to the ways in which individuals or organizations create and develop new institutional norms and rules that redefine appropriate social behavior^[11]. Greenwood & Suddaby (2006) define institutional entrepreneurs as “organized actors who envision new institutions as a means of advancing interests they value highly yet that are suppressed by extant logics” and regard institutional entrepreneurs to be interest-driven, aware, and calculative^[17]. Jain & George (2006) suggested institutional entrepreneurs as actors that actively mobilize resources to create new institutional logics or transform existing logics or frameworks^[19].

Compared with advanced countries with well-designed institutions, transition economies have less stable institutional environment. In this case, as pointed by Sine & David (2003), environmental jolts could prompt institutional actors to engage in problematic search processes that can both delegitimize existing institutional structures and uncover alternative arrangements^[20]. Therefore, in specific historic context of transition economy there have great potentials for institutional entrepreneurs to induce institutional innovation and even restructuring of institutions.

Inspired by the most recent article from Dean & McMullen (2007), who introduced the concept of “sustainable and environmental entrepreneurship” which details how entrepreneurs seize the opportunities that are inherent in environmentally relevant market failures^[21], we would rather to turn to another side of the same coin, namely, the opportunities inherent in new round environmental protection issues, such as climate change, renewable energy exploration, recycling economic development and so on.

Based on those previous definitions, our research identifies the essence of institutional entrepreneurship as actors who act with a “mindful deviation” to previous path and make an intentional search to new niche that might evolve into a new technological or market path.

3. RENEWABLE ENERGY INDUSTRY AS AN EMERGING NICHE FOR WESTERN REGION’S FIRMS

Western regions in China occupy more than 70% of its territory. More important is that most of the natural resources in China are reserved in western regions. However, due to historical reasons, western regions are lagged behind the economic developed regions comparing with the eastern part of China. During the planning economic period, western regions were heavily embedded into a specialized industrial structure with resource-based industries. For many years, there have been little changes to such situation. Despite of the favorite state policy in developing western regions of China, many firms in western regions are still following the old path, by which some of old industrial regions, such as Shanxi Province, have ever undergone, namely, resource dependence---mono industrial structure---environment destruction and the induced ecological exacerbation---exhaustion of resources---economic declination. In 1999, the Grand Western Development Program was issued under direct support from the central government of China. Under this program, western regions have been undergoing a rapid development. However, man couldn’t ignore problems during this period. However, problems during the development should not be ignored. Since then, serious resource wasting, ecological destruction, environment pollution and induced natural disasters have been a common problem in western regions. With a myopia insight, the development of western regions at a certain degree is at the cost of sacrificing environment and resources welfare. In turn, these leads to the unwillingness of FDI in western regions, hindering the further development of industrial restructure and upgrading. In face of this situation, both government departments and some insightful entrepreneurs are being aware of this problem, trying to escape the old path experienced by some resource-based regions and at the same time to explore possible new industries. According to a research from Development Research Centre of the State Council (DRC, China)(2007), China must resolve the problem of path dependence on energy-consuming industries in order to build resource-saving society and to upgrade industrial structure. In this case, renewable energy

industry could be a possible “window of opportunity” to break the path dependence.

In the wave of the worldwide concern on energy safety, the central government of China is concerning more about the foundation for a sustainable economic development by “reinforcing resource saving and environmental protection”. On 1st January, 2006 China has the “Renewable Energy Law” was issued in China, which is not so lagged than many economic advanced countries in enacting such a law. According to an official statistic, the usage of renewable energy in China in the near future will keep an annual rate of 25% and more than 30% demand of energy will depend on the supply of renewable energy. In the government issued “Mid- and Long Term Development Plan of Renewable Energy”, China will invest more than 1,500 billion RMB (Yuan) in developing renewable energy in the future 15 years. Undoubtedly, the development of renewable energy industry caters to the whole national policy.

In this context, firms in western regions in transition period position themselves in a historical opportunity by following the national policy to restructure and readjust industrial structures and to develop new industrial branches. Though the great share of western regions’ energy in the whole China, with more than two thirds of resources are reserved in western regions, the exploration and using rate of these resources occupies only 30% in the whole China. As the region with abundant natural resources, Sichuan Province has two thirds of resources in the whole western regions, especially with obvious superiority in renewable energy, such as hydro energy, solar energy, biomass energy, wind energy. Therefore, in the recent issued “Outline of the Mid- and Long-Term Science & Technology Development Program (2006-2020)”, Sichuan Province has identified the stimulation and solidification of renewable energy industry as new opportunity for industrial structure upgrade and regional sustainable development. And indeed, as Shrivastava (1995) suggested, environmental technologies would be a competitive force and a tool for competitive advantage^[14]. Therefore, it’s really important to develop environment friendly technologies, especially in renewable energy industry, in order to improve regional competitive advantage on the one hand and on the other hand to achieve regional sustainable development.

4. ROLE OF INSTITUTIONAL ENTREPRENEURSHIP IN EXPLORING THE EMERGING NICHE

By reviewing related researches on entrepreneurship, we can find that to exploit economic opportunities has become the focus of intense examination by entrepreneurship scholars^[22]. In face of new economic opportunities, the most valuable characteristic of entrepreneurship is the identification of commercial opportunity and corresponding leveraging power to achieve it. According to the research by Aldrich & Fiol (1994), entrepreneurship could be described at a certain degree as “fools”, who rushes in a brand new industry branch. For the sake of their own interests, these institutional entrepreneurs could leverage a new technological and market niche by energizing efforts toward collective action and promoting strategies for establishing stable sequences of interaction with other organizations to create entirely new industries or associated institutions^[23]. In Reinstaller (2005)’s article, he thought that “policy entrepreneurs”^[24], unlike Schumpeterian entrepreneurs are driven by a social instead of an economic motive. They do not wish to capture economic value for themselves, but want to find new avenues towards social improvement and in this way create social value. However, we would argue that in transition economy, institutional entrepreneurs are also driven by economic value. But maybe they prefer an indirect way in pursuing greater economic value by identifying a window of opportunity behind possible policy/institution transformation and initiating new practices and leveraging related resources in institutionalizing those new practices.

According to recent researches on transition economy in the context of China (Child & Tse, 2001), “China remains a context in which governmental agencies continue to exercise an active influence over strategic business decisions”^[25]. That means institutions matter in certain context. In his famous article, Peng (2003) advanced the argument that “institutional transitions throughout emerging economies present a fascinating opportunity to integrate institutional and strategic choice perspectives”^[10]. Peng’s

insight on an institution-based view of strategy indicated that institutional entrepreneurship should be interpreted as a combination of both enabling aspects from institution and entrepreneurship^[26-28].

As “pioneer” and “leverage power” of new industry branches, institutional entrepreneur could play an important role in developing economy and keep environment sustainable development. As Dean & McMullen (2007) pointed, entrepreneur can help resolve environmental problems and the study of entrepreneurship could transcend its environmental context and provide insight into other related researches^[21]. Recent researches, for example, research by Maguire et al (2004) on HIV/AIDS treatment advocacy argued that institutional entrepreneurship could play an important role in emerging fields by “occupying ‘subject positions’, theorizing new practices, and institutionalizing these new practices”^[29]. Though Garud et al (2002) ’s research pointed the challenges faced by individual firm in sponsoring common technological standards, we would argue that in transition economy^[30], there has a different context as what Garud’s research under network technology environment. But at the end of Garud’s article, he indicated the future research “to study the interactions between the micro actions of actors and emerging macro institutional structure”. Our research builds on this earlier work while departing from it in significant ways. First, previous researches have featured either individuals or private firms as institutional entrepreneur or positioned the powerful organizations, such as government department, patent-transfer-office, and so on as institutional entrepreneur, making a tension between the division of institutional entrepreneurship on the one hand and confusion of this concept for the later researchers on the other hand. In their recent research, Maguire et al (2004) have pointed out the ambiguous division of agencies between individuals and organizations as institutional entrepreneurs^[29]. Based on their advocacy for a systematic discussion of individuals and organizations as institutional entrepreneurs, our research presents the argument that both government departments and individual firms or individual entrepreneurship have the enabling role of institutional entrepreneurship in transition economy. Secondly, our study explores acts of institutional entrepreneurship in western regions of China in transition economy in initiating renewable energy industry branch as a path creation to regional sustainable development. As Jain & George (2007) indicated, initiatives from entrepreneurs can potentially have a “path-defining” effect on industry evolution^[31].

Hoffman (1999) distinguished between three types of disruptive events that can overcome institutional inertia: milestones, such as Earth Day; disasters, such as pollution accidents; and legal/administrative events, such as parliamentary hearings, trials and the release of environmental white papers^[32]. Considering the rapid environment pollution and exhaustion of resource in western regions, and even some happened serious natural disasters in recent years, sustainable development has become a common insight for people living in western regions, with a strong willing to escape the original unsustainable path. In this case, insightful institutional entrepreneurs are of great values to stimulate the development of renewable energy industry in western regions of China.

5. CONCLUSION

Renewable energy industry is a high-opportunity branch that faces growing product demand and is attractive to investors. This indicates that good entrepreneurs may create their own opportunities and even have the effect of “path defining” for the evolution of regional economic development. Recent researches on entrepreneurship and technology innovation have disclosed that entrepreneur could leverage successfully a certain market niche, and even induce a revolution of a specific industry. In an echo of stressing environment protection and energy safety pressure, more new industrial and market niches are emerging in this field. Successful story, like the wind energy industry in Germany, tells us that entrepreneurs can play an important role in stimulating renewable energy industry, in creating new branch for industry growth, and even in reshaping regional industrial structure, contributing to regional sustainable development.

In transition economy, both institution and technology (market) niche could be co-evolved under the enabling role of institutional entrepreneurs, who take advantage of the enabling aspects of institution in

transition economy while at the same time avoid potential constraint of institutions. Considering the past bitter experience in some old industrial regions, western regions in China should and could have a different development path, namely achieving a sustainable development, under the enabling power of institutional entrepreneurship in transition economy.

As a response to Peng (2003)'s critics to some researches on institutional transitions focusing on industry-specific changes while ignoring the massive institutional transition in transition economies^[10], our research was based on a broad framework of institutional change in China, namely, the massive institutional and industrial transition in western regions under The Grand Western Development Program initiated in 1999. Considering the fact that lot of existing literatures on technological entrepreneurship has generally neglected institutional factors, this research introduced the perspective of institutional entrepreneurship in transition economy as a possible effective method for western regions in China for the pursuit of constructing a harmonious, sustainable regional development. As environment and energy issues are becoming more and more an emergent agenda in China, the emerging great niche of renewable energy industry could be leveraged by insightful institutional entrepreneurs in western regions. Thus, the regional development of western regions in China could be expected to follow an innovative path instead of the traditional resource-based development path.

As a final note, I reiterate the pivotal role played by institutional entrepreneurs in inducing renewable energy industry. In trying to offer receipt for the creation of new path for sustainable development in western regions of China, researchers should give more spots to explore further the enabling role of institutional entrepreneurs in transition economy.

Furthermore, from the point of strategic management, this paper makes a contribution to explore the possibility of entrepreneurs in western regions of China in breaking path dependence and in achieving path creation.

6. DISCUSSION

This study has tried to address two questions. As a response to the debate on "the paradox of embedded agency", this paper proposes that entrepreneurs, even in the context of transition economy, which has previously been identified as a constraint to actors, could play an enabling power to a certain degree. On the other hand, as a positive response to the initiative by Garud and Kanoe (2001), which advocated more research on the role of actors at micro level in achieving path creation^[33], this paper tries to prove that institutional entrepreneurs have great potential in exploring new path for regional sustainable development.

However, considering "even the development of technological standards is a battle fought in political and cognitive realms"^[30], the sponsoring and initiative by institutional entrepreneur could be a complex process interwoven by different stakeholders in the context of transition economy. On the other hand, the establishment and institutionalization of new industry involves a process of co-evolution among regulative, normative, and cognitive elements^[34]. To this complex problem, this research still lacks a rich base of deeply grounded theory to contribute to the solving of this problem and calls for further research with the co-evolution perspective in the context of transition economies.

The issue of "overcoming the free riding problem" rose by Russo (2003) is still unresolved^[15]. Still further, more empirical researches should be conducted to explore the co-evolution of institution and industry structure. Apart from these, this research hasn't answer those questions like how and when should institutional entrepreneurs initiate new practices in creating new path. Considering the largely untapped field in related transition economy and entrepreneurship researches to western regions of China, this research perhaps presents a new "niche" for scholars from different disciplines to explore the role of institutional entrepreneur in stimulating the emerging niche of renewable energy industry in western regions of China.

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