

**CITY UNIVERSITY OF HONG KONG**  
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**The Research on Industry Transformation and  
Upgrading in Resource-exhausted Cities - A  
Case Study of Zaozhuang City**  
資源枯竭條件下的城市產業轉型升級研究  
—以山東省棗莊市為例

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## 摘 要

資源型城市是指以自然資源開發而興起，以對自然資源的開發或初加工產業為主導或支柱產業的城市。我國的資源型城市是隨著工業特別是重工業的發展而興起並逐步壯大的，為國民經濟和社會發展作出了重大貢獻。但是，資源儲量的有限性和不可再生性決定了資源型城市普遍會存在隨著資源數量的減少而出現經濟滑坡和城市衰退，自 20 世紀 90 年代以來，由於缺乏統籌規劃和資源衰減等原因，我國部分資源型城市的主體資源逐漸枯竭，面臨擺脫經濟困境、進行經濟轉型的問題。因此，以經濟轉型帶動城市發展實現城市全面轉型是實現城市競爭力重塑的必由之路。資源型城市最根本的經濟問題歸結於其產業和城市依託資源而生，其城市轉型的本質也就在於產業轉型升級，以新的產業來帶動地方經濟新一輪的發展。

棗莊市是我國重要的能源和建材基地。棗莊 1961 年建市後成為全國重點煤炭資源型城市，從建國初開始累計生產原煤 6.4 億多噸，為全省和全國經濟建設做出了重大貢獻。隨著長時期高強度、大規模開採，棗莊市煤炭資源日漸衰竭，由此引發的諸多矛盾，問題逐漸顯露，在實現持續發展、結構調整、生態環保、民生保障、財政支出等方面的壓力日趨增大。2009 年 3 月，被國務院列為第二批 32 個資源枯竭城市轉型試點市之一。棗莊同其他資源枯竭型城市一樣，作為曾經因煤而興的城市，正在因煤而痛，加快經濟轉型步伐已迫在眉睫。

本論文採用規範與實證分析相結合、定量分析與定性分析相結合的研究方法，對國內外資源型城市產業轉型相關理論和實踐進行多方面比較借鑒。本文主要的研究邏輯如下：（一）運用實證方法對棗莊市 1976-2013 年的年度資料來分析該市煤炭資源的枯竭對城市經濟發展效率的影響。本文預期煤炭資源對於經濟發展有

促進作用，棗莊市煤炭產值占比越高，其經濟發展指標越高，而煤炭產值占比越低，其經濟發展指標越低，即隨著煤炭資源的枯竭，棗莊經濟發展呈下降態勢，由此推出需研究下一輪主導產業的轉型；(二) 結合棗莊實際情況，對比分析國內外與棗莊類似的資源枯竭城市的轉型成功的案例，分析棗莊市在產業轉型升級方面可以借鑒哪些方法措施。(三) 根據棗莊市目前的實際情況，運用主導產業選擇理論與原則，通過對主導產業選擇的指標體系測算，結合 AHP 確定指標權重以及穩健性分析，選擇出棗莊市未來發展的接續主導產業。(四) 根據國家宏觀戰略以及新產業技術革命兩個方面對棗莊的機遇分析，對現有產業進行分析研判。最終得出棗莊市應該以哪些產業為主導產業，哪些產業作為支柱產業；(五) 分析地方政府在棗莊市產業轉型升級過程中應發揮哪些作用，通過產業政策和配套政策來保障棗莊市產業轉型升級能夠順利實施。

## ABSTRACT

Resource-based city is thriving with the development of local natural resource , the dominant industries are mining natural resource and preliminary process industries. The resource-based cities in our country develop and expand with the development of industry especially heavy industry which made significant contribution to the national economy and social development. However , the resource reserves are finite and nonrenewable , which cause the economy decline and cities deteriorate with the decline of resource. Since 1990 , owing to the lack of overall planning and reduction of natural resource , many resource-based cities faced the problem of economic slowdown and structural transformation. Thus , in order to revive the competitiveness of the city , it is crucial to transform its economic structure and lead to comprehensive transformation of the city itself. The basic characteristic of a resource-based city is that its industries and economy rely heavily on natural resources; the essence of the city's transformation lies in the transformation and upgrading of its industries, and letting the new industries to become the drivers of the next phase of development for the local economy.

Zaozhuang is an important base of energy and building materials. It became one of the national key cities for coal since the municipality was founded in 1961. It has produced about 640 million tonnes of raw coal since 1949 and made huge contribution to the economic development of Shandong Province and the nation as a whole. With long period of intensive and large scale mining, the local coal resource is depleting day by day. This has brought about a number of serious problems to the local economy, such as sustainable economic development, structural transformation, environment protection, social welfare, and fiscal expenditure. In March 2009, Zaozhuang was declared the State Council as one of the 32 cities on the list of “the second batch of resource-exhausted cities”. As many other resource-depletion cities, Zaozhuang is now encountering economic hardship because of its reliance on the very

same rich coal resources that had once made it prosperous, making it imminent the need for a speedy economic transformation.

Based on the theories and practices of resource-dependent cities' industrial transformation, this dissertation combines the methods of qualitative and quantitative analysis. It follows the research framework as below. First, it empirically investigates the effect of coal resource depletion on some key indicators of urban economic development, by using the annual data of Zaozhuang City during the period from 1980 to 2013. We propose that there is a negative relationship between coal resource depletion and urban economic development, that is, with the depletion of coal resource, Zaozhuang's economic development will decline, which could be the evidence for the necessity of research on the transformation of its dominant industry. Second, given the current situation of Zaozhuang, we employ the theory and principle of transforming dominant industry to select the successive dominant industry for Zaozhuang's future development, by using the method of Analytical Hierarchy Process and Dominant-Industry Selection Index System. Third, by comparing with the successful cases of industrial transformation by resource-dependent cities that share similar characteristics with Zaozhuang, we analyze the transformation paradigm of Zaozhuang based on its current situation. Fourth, given that we have selected above the successive dominant industry, we further study the path of industrial transformation and upgrade for Zaozhuang's future development. Fifth, we discuss the role of local government in Zaozhuang's industrial transformation and upgrade.

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