



**“Gheorghe Asachi” Technical University of Iasi, Romania**



---

## **ROLE OF GOVERNMENT IN PUSHING FORWARD MANUFACTURING SUSTAINABLE DEVELOPMENT MODE IN DEVELOPING REGIONS: A CASE OF MAINLAND CHINA**

**Jian Cao\*, Gengui Zhou, Xuemei Zhang**

*Zhejiang University of Technology, College of Economics & Management, Hangzhou, Zhejiang 310023, P.R. China*

---

### **Abstract**

The sustainable development (SD) mode is a way by which enterprise behaviors are harmoniously compatible with human health and the environment. The implementation of SD mode amongst manufacturers is better for socially sustainable development. However, the motivation for manufacturers to apply the SD mode is limited in most developing regions. The remedial measures for this problem are studied in this paper. By applying evolutionary game theory mainly as well as empirical analysis, how to promote the diffusion of SD mode among manufacturers by governmental agencies is discussed. Combined theoretical deduction with case study, the government's strategies and measures are proposed. The government's supervision rewards and penalties as well as their prompt adjustments are proposed under micro-operational level. From meso-policies view, governmental measures such as intensifying regulations on leading manufacturers, taking full advantage of public oversight, accomplishing extended producer responsibility instrument and regulating current third-party certification agencies are suggested. The results gained are helpful to guide the construction and development of manufacturers in developing economies, as well as the formulation and implementation of government's sustainable development policies.

*Key words:* developing region, evolutionary game, governmental regulation, manufacturer, sustainable development mode

*Received: February, 2013; Revised final: August, 2013; Accepted: August, 2013*

---

---

\* Author to whom all correspondences should be addressed: e-mail: [jcao@zjut.edu.cn](mailto:jcao@zjut.edu.cn); Phone: +86-571-85290284; Fax: +86-571-85290284