

*E-Commerce Adoption and the Dynamics of the SMEs Cluster: Evidence from Zhili Children's Garment Town, China**

Cassandra C. Wang, Tianshu Zhang, and Zhouying Song

Abstract

Despite the increasing importance of e-commerce adoption in a digital economy, its impacts on the functioning and dynamics of traditional industrial clusters are not yet touched. This exploratory study of the actual practices of e-commerce adoption and its impacts on a traditional town-based cluster in China unfolds an intriguing trajectory that does not conform to popular perceptions of e-commerce studies. It is found that e-commerce adoption neither depreciates local production networks between clustering SMEs nor changes the way of knowledge circulation and utility within the cluster. Trust relations created by geographical and relational proximity cannot be achieved by either electronic communications or online transactions. However, e-commerce adoption does start to

Cassandra C. Wang is Professor and Assistant Dean in the School of Earth Sciences, Zhejiang University, China. Correspondence should be sent to chencwang@zju.edu.cn.

Tianshu Zhang is Ph.D candidate in the School of Earth Sciences, Zhejiang University.

Zhouying Song is Associate Professor in the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences.

* The work described in this article has been sponsored by the grants from National Natural Science Foundation of China (Nos. 41871106, 41371006). We would like to express our gratitude to the anonymous reviewers for their helpful comments on the earlier drafts of the article. We also thank Yanyu Yang for her assistance in data collection and processing.

alter the inter-dependent relationship between clustering firms and local specialized market by diversifying marketing channels of clustering SMEs and more easily targeting and accessing to individual customers. Findings of this research contribute to the debate over the pattern of trust-building in a digital era and to the discussion on local buzz and virtual buzz.

In recent decades, the world economy has been characterized by an increasing globalization and a wide adoption of e-commerce. Advances in information and communication technology (ICT) and the ongoing application and diffusion of e-commerce have radically altered the traditional business model by expanding marketing channels, reducing operation costs as well as strengthening the coordination and promoting cooperation between upstream and downstream firms.¹ There are numerous studies focusing on the determinants of firms' adoption and diffusion of e-commerce and potential benefits they could have achieved.²

Whereas these studies claim that the ICT revolution can transcend national boundaries to eliminate the friction of distance, many economic geographers argue that geographical spaces remain important in economic development and industrial activities even though the advances of ICT enable locals to communicate timely with their global partners.³ Although the relationship between virtual spaces and geographical spaces has been deeply discussed in the literature, the impact of e-commerce adoption on the functioning and dynamics of traditional industrial clusters is not yet touched. As Aoyama and Sheppard have incisively pointed out, "the questions of whether Internet transactions substitute for, or are contributing to, the demand for transportation, and the impact of E-commerce on the geography of warehousing, are important areas for further research. This is particularly the case for B to B (business to business) E-commerce, whose geographies, and implications for the location of manufacturing, remain to be unraveled."⁴ Does e-commerce adoption of clustering firms depreciate local production network? Do clustering firms appreciate online knowledge circulation brought by e-commerce and the Internet? Does e-commerce adoption generate the same level of trust as the clusters do? Can e-commerce change the relationship between clusters and the outside world, such as the inter-dependent relationship with the local specialized market? These questions remain unanswered.