

Accepted Manuscript

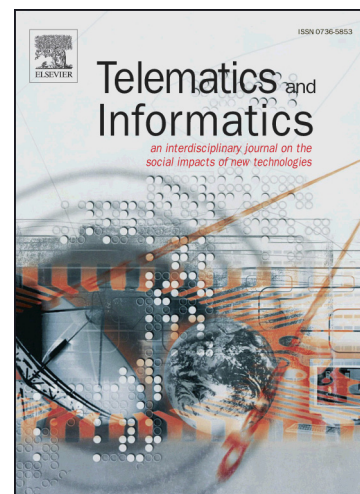
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PII: S0736-5853(17)30654-8
DOI: <https://doi.org/10.1016/j.tele.2018.01.012>
Reference: TELE 1069

To appear in: *Telematics and Informatics*

Received Date: 8 October 2017
Revised Date: 10 January 2018
Accepted Date: 23 January 2018



Please cite this article as: Liu, G., Gao, P., Chen, F., Yu, J., Zhang, Y., Technological Innovation Systems and IT Industry Sustainability in China: A Case Study of Mobile System Innovation, *Telematics and Informatics* (2018), doi: <https://doi.org/10.1016/j.tele.2018.01.012>

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Technological Innovation Systems and IT Industry Sustainability in China: A Case Study of Mobile System Innovation

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Abstract

In recent years China not only caught up with countries leading the field of wireless mobile technologies but has kept a pace following years of innovation, as mobile technologies like TD-SCDMA and TD-LTE in China have been recognized as international standards by the International Telecommunication Union (ITU). Through case studies of the technological innovation systems (TISs) of 3G (TD-SCDMA), 4G (TD-LTE) and 5G in China, this work advances our understanding of the relationship between technology innovation and TISs, as well as that between the TIS and industry sustainability in the IT field. An innovation system function-based framework is applied to structure the data collection and analyse the results. Extensive documentary research and semi-structured interviews are conducted in this study. The key point of the reasoned argument of our conclusion is that a well-functioned TIS not only facilitates technology development and diffusion, but also promotes the sustainability of the IT industry by pushing forward socio-technical transformation.

Keywords: Technological Innovation System; Sustainability; IT industry; Mobile System; China

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