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Sustaining Bike-Sharing Systems in China: Case studies

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This paper seeks to understand how bike-sharing systems contribute to reducing a reliance on the use of private vehicles in urban environments. Bicycles are a sustainable form of transportation for many reasons, including the fact that taking a bicycle is environmentally-friendly, economically cost-effective, a way to keep fit and healthy and, on occasions, an enjoyable social activity. The empirical study analyses bike-sharing systems in five Chinese cities. Not only is China suffering from the severe negative consequences of high private vehicle usage in high and densely populated cities but there is a long history of bicycle usage in the country which provides the potential for such a form of travel to be a viable alternative to motorised vehicles. The findings show that bike-sharing systems have been introduced with varying degrees of success. The configurations which maximize contributions to sustainable travel both consider and integrate elements relating to transport planning, system design and choice of business model. Key conclusions are that those responsible for developing policy and practices in relation to bike-sharing systems need to understand aspects of value from a user perspective, which, in part, reflects the diverse reasons for wishing to engage with such a system. They also need to recognise that public bicycle sharing is a complex and evolving Product Service System in which appreciating the interplay between design of the physical product and the service being offered is crucial to its success.