

Book Review

Frischmann, B.M. 2012. *Infrastructure – The Social Value of Shared Resources*. Oxford/New York: Oxford University Press.

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The book “Infrastructure: The Social Value of Shared Resources” by Frischmann is one of those rare books that focuses on the demand-side challenges of the infrastructure from the perspective of commons. It highlights the social value of the demand-side issues associated with traditional and non-traditional infrastructures. This book strongly emphasizes the importance of infrastructure as resources and commons as a mode of management. It explains how the users do not appreciate the social value that is provided by these infrastructures. The author throws insight on how to manage and sustain these resources as commons. A broader overview of infrastructure and commons management apart from a theoretical analysis of the micro-economics dimension of infrastructure from demand side is provided.

The author lays down three economic criteria to infrastructural resources. He states that (i) they are non-rivalrous in consumption until some appreciable demand arise, (ii) drive the social demand, and (iii) offer services and goods. On the basis of these criteria, he classifies the infrastructure into different types such as commercial, public, social and mixed infrastructure. Later he discusses the demand concepts of commons management on the basis of two approaches: private strategy and public strategy. The private strategy approach is likely to economize on information and transaction costs and also helps in developing cooperation with competitors, thereby maximizing the option value of infrastructure. On the other hand, the public strategy approach improves the social welfare by serving two public functions: (i) diffusing the political and market pressure, and (ii) assigning users the authority to decide on the opportunities provided by the infrastructure. Hence, when users follow this public strategy, they could sustain the basic nature of infrastructure and avoid the huge social opportunity costs. This may reduce the complexity of infrastructure use and generate greater social value in the future.

Three sets of concerns are considered for evaluating the case of managing infrastructure: (i) complying with non-discrimination rules for pricing regimes, (ii) complications that arise due to the partial rivalrous nature of infrastructure, and (iii) impact of supply-side non-discrimination rules. These concerns are studied in both traditional and non-traditional infrastructure situations, selected on the basis of demand-side similarities. Some of the examples of traditional infrastructure are transportation and telecommunications. They provide mobility and communications to users irrespective of their different supply side origin and are also accessible to the public on non-discriminatory terms. These infrastructures are characterised by problems related to congestion, pollution, public financing for maintenance and improvements, and regulatory costs. Non-traditional infrastructures are normally environmental and intellectual infrastructures. Environmental infrastructures include a wide range of resources such as oceans, lakes, forests and atmosphere, while the intellectual infrastructure includes research ideas, technologies and languages. These infrastructures face the same demand-side issues such as congestion and degradation problems. Here, the author argues that environment and intellectual infrastructures are structured in semi-common arrangements, i.e. they create and regulate both private rights and public commons.

To summarize, Frischmann's book adopts a new perspective in studying the various forms of infrastructure by understanding its social value and by emphasising the related commons management strategies in the form of non-discriminatory access, thereby avoiding negative externalities like congestion, pollution, etc. The author classifies lakes, roads and the Internet as impure public goods (i.e. between public and private goods). This stands in stark contrast to the conventional classification table where roads are classified as toll goods and lakes are classified as common pool resources. Furthermore, the analysis of non-traditional infrastructures, like the environment and technology is very innovative. However, an in-depth analysis of the infrastructures in the context to supply side issues could have been presented.

This book is highly recommended and makes an essential reading for policy makers, politicians, social workers and interdisciplinary research scholars (i.e. both engineering and social science) who are interested and involved in analysing demand-side opportunities and challenges of infrastructure management.