

Contents

| | |
|--|----|
| 1 Introduction | 1 |
| References. | 5 |
| 2 Overview of Findings on HSR Accessibility | 7 |
| Speed on Rails | 7 |
| High-Speed Rail Definition | 7 |
| The Impact of Intermediate Stops | 9 |
| HSR-Operating Models | 14 |
| Exclusive Exploitation. | 15 |
| Mixed High Speed | 16 |
| Mixed Conventional | 16 |
| Fully Mixed | 16 |
| HSR Ridership | 17 |
| HSR Freight | 18 |
| Studies on the Accessibility of HSR Systems | 18 |
| Pioneering French Studies. | 20 |
| British Studies: Issues and Doubts | 22 |
| The Dutch School: Refining the Concept of Accessibility. | 23 |
| Accessibility of Cities | 24 |
| Accessibility of Stations | 25 |
| The Spanish School: New Trends and Perspectives | 25 |
| Economic Perspective | 26 |
| How to Measure Accessibility. | 26 |
| Accessibility of Intermediate Cities. | 28 |
| China, USA and Australia: Great Expectations | 30 |
| Implications. | 31 |
| References. | 34 |
| 3 Capturing Network Effects | 43 |
| Measuring HSR Accessibility | 44 |

| | |
|--|------------|
| Potential Accessibility | 46 |
| Location Accessibility | 47 |
| Daily Accessibility | 48 |
| Relative Network Efficiency Accessibility | 49 |
| Level of Analysis | 50 |
| Indicators Comparison | 51 |
| Multilevel Analysis | 52 |
| Regional Level Analysis | 54 |
| Rail Networks | 57 |
| Hierarchical Networks | 58 |
| Network Effects | 59 |
| Measure Implementation | 61 |
| Accessibility Measure | 61 |
| Measuring Network Effects | 67 |
| Monetizing Network Effects | 68 |
| References | 70 |
| 4 Access Transit Strategies | 75 |
| What Need for Access Networks? | 76 |
| Criteria to Select Strategies | 77 |
| Competitive Advantages | 77 |
| Regionalization Trends | 78 |
| Interoperability | 79 |
| HSR Feeders or Interfaces? | 79 |
| Feeders | 80 |
| Interfaces | 80 |
| Review of Transit Options | 80 |
| Regional Metro Rail | 81 |
| Regional High-Speed Rail | 82 |
| Light Rail Transit | 84 |
| Continuous Railway Systems | 86 |
| Background | 87 |
| Technology Bits | 90 |
| Expert-Based Evaluation | 94 |
| Attribute Definition | 96 |
| References | 97 |
| 5 North-Eastern Italy as Case Study | 103 |
| Urban Regions | 103 |
| Definitions | 103 |
| Location Attributes | 105 |
| Typology and Characteristics | 105 |
| Competitive City-Regions | 108 |
| North-Eastern Italy | 110 |

- Critical Issues 113
- Network Description 116
- Data 121
- Case Study Results 122
 - Accessibility Measure Results 122
 - Sensitivity Testing 122
 - Network Effects Results 125
 - Network Efficiency Accessibility Quality Index 126
 - Monetized and distributed network effects results 127
- References. 133
- 6 Discussion and Conclusions 137**
 - Regional HSR Accessibility 137
 - Accessibility Outside the HSR Network 138
 - Self-potential: A Problem or an Indicator? 139
 - Strategies Interfacing with HSR 140
 - Market Expansion 143
 - Distributive Effects of Transit Strategies 145
 - Evaluation of Strategies on the Accessibility Indicator 146
 - Evaluation of Strategies on Network Effects 148
 - Evaluation of Monetized and Distributed Network Effects 150
 - Limitations 151
 - Recommendations 152
 - Research Directions. 154
 - Conclusions. 155
 - References. 156
- Index 161**



<http://www.springer.com/978-3-319-61414-4>

High Speed Rail and Access Transit Networks

Brunello, L.R.

2018, XVII, 163 p. 47 illus., 42 illus. in color., Hardcover

ISBN: 978-3-319-61414-4