

# **Improving Infrastructure of E-tailing in India for Environmental Sustainability**

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## **Abstract**

India is one of the fast-developing BRICS nations having a great growing strength in mobile and smart technology. This technology advancement has enhanced online sales in retail sector (e-tailing) for high value electronic or sports products and low value grocery or stationary products. The online sales increase the movement of products from manufacturers and retailers to buyers, resulted huge increase in demand for logistics services. India is trying to focus on reducing carbon emissions without having much regulations for strong implementation. Ultimately, capital cities such as Delhi and Bangalore face heavy traffic congestions, involving public transport and goods transport. To avoid this situation, our research is exploring how local businesses, suppliers and logistics providers can work collaboratively sharing their resources such as warehousing, transportation and delivery to achieve environmental sustainability having win-win situation for all stakeholders involved. We conducted in-depth case studies with local companies to understand the current difficulties in delivering online orders. We will compare, and contrast e-tailing models of the UK with India to suggest an appropriate model that can solve local issues and address sustainability goals. Our research will provide a new online e-tailing model to implement good practices to a wider society to enhance quick impact of sustainability.

## **Keywords**

e-tailing, sustainability, logistics, collaboration, smart technology

## **Biographies**

**Usha Ramanathan** is a Professor of Sustainability and Supply Chains in Nottingham Trent University, UK. In the past, she worked as Reader and Senior Lecturer in Universities in the UK, Oman and India. Her teaching experience spans for over 23 years. Usha is a Fellow of Higher Education Academy and Chartered member of Chartered Institute of Logistics and Transport. Usha's research interest includes supply chain collaboration for sustainability, role of collaboration in SMEs' performance, supply chain issues, value of information sharing and forecasting, e-commerce, e-tailing, social media, Business Analytics, retail customer behaviour and loyalty in the contexts of service and operations. She has published in leading journals such as International Journal of Production Economics, International Journal of Operations and Production Management, Expert Systems with Applications and Omega: The International Journal of Management Science. She is a reviewer for many leading journals.

**Muthu Mathirajan** is a Chief Research Scientist at Indian Institute of Science (IISc), which is one of the premier Research Institutes in India. Dr Mathirajan's research interests are in the development of mathematical modelling and heuristic methods for the problems related to Industrial Engineering, Operations, Logistics and Supply Chain Management in Manufacturing, Service and Container Terminal Management areas. He has published over 175 research articles. He is a co-author of five books, published by Person, CRC Press, PHI, Allied Publishers, and IK Publications respectively. So far nine dissertations were awarded PhD degree under his guidance in IISc, Bangalore. He carried out five major funded research projects related to development of decision support systems, understating the R&D activities of SMEs, and the study on the impact of technological innovations of SME towards its economic growth.