Constructing an Urban Future: The sustainability and resilience of cities – infrastructures, communities, buildings and housing.

• Paper / Proposal Title:
Green Supply Chain Management in Construction: From a Literature Review to a Conceptual Framework

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• Abstract (300 words):
Environmental sustainability in construction is a pressing concern for the industry globally. The construction industry uses around 40–50% of all raw materials extracted globally and, as a sector, is the largest contributor to carbon emissions. Established environmental assessment systems for construction, such as BREEAM, require attention to materials through their lifecycle, from extraction through production and use. In this area, sustainable or green supply chain management (GSCM) has much to offer. GSCM differs from traditional approaches in (1) a focus on environmental impact across the full product or service lifecycle; (2) a requirement for closed loops, that is, that products are re- or up-cycled after one use to become raw material for another
product life, and (3) a systemic approach to integration across all lifecycle stages. Complementing the burgeoning literature on GSCM in different sectors, a research interest in GSCM in construction is developing. However, the challenges for the construction sector are in some ways different from other industries and a thorough review of the application of GSCM in construction is unavailable. This paper aims to address this gap by providing a timely bringing together of existing research on GSCM in construction. It will present a systematic review of the literature which involved reviewing GSCM papers published in peer-reviewed journals from 1996 to 2016 to ascertain the status of this research area and identify directions for future research and practice. The reviewed papers are analysed in terms of topic coverage, research design and methodologies, GSCM strategies, enablers and barriers. We conclude by offering a conceptual framework to synthesise the research in this field. The findings discussed in this paper are believed to provide useful guidance for both academics and practitioners on the future research directions and applications of GSCM in construction.

- Author(s) Biography (200 words each):

Dr. Sulafa Badi

Dr. Sulafa Badi is Associate Professor of Management and Organizational Behaviour at the British University in Dubai (BUiD) and Honorary Senior Fellow at the Bartlett School of Construction and Project Management, University College London (UCL). She started her career as an Architect before joining academia and holds an MSc in Construction Economics and Management and a PhD in Project Management, both from UCL. Dr Sulafa’s sustainability research examines the role of complex public-sector procurement models in encouraging sustainable energy innovation, with an emphasis on how inter-organizational collaborations in supply chains, networks, and markets can facilitate sustainable development. Her recent research interest is on digital transformation, wellbeing and sustainability in construction service ecosystems examining the impact of digitalisation on the delivery of sustainability in construction markets and how actors, relationships and institutions can be transformed so that resources can be integrated with less impact on the environment over time. She publishes her research in leading international journals, including Industrial Marketing Management, Project Management Journal, Construction Management and Economics, and the International Journal of Managing Projects in Business.

Dr. Niamh Murtagh

Dr Niamh Murtagh is a Senior Research Fellow at the Bartlett School of Construction and Project Management, University College London (UCL). Niamh is an environmental psychologist whose research focuses on sustainable behaviour, including energy, transport, recycling and the built environment. As a Research Fellow in the
Environmental Psychology Research Centre at the University of Surrey, her work explored transport and energy behaviours, on projects funded by ESRC and EPSRC, co-working with disciplines including communications engineers, economists and political scientists. At UCL, Niamh’s focus has been on applying insights from psychological theory to sustainable construction, investigating the psychological underpinnings of pro-environmental behaviour in construction professionals. Again multidisciplinary, working with geographers, architects and management scholars, her studies have examined professional identity, motivation and dynamics of power in architects, small builders and building control inspectors. A more recent interest is on climate change resilience in the built environment and she has won funding from the British Academy to explore psychological factors at play in householders’ decisions on making their homes more resilient to overheating. Niamh has published widely in, and is a regular reviewer for, journals including Journal of Environmental Psychology, Construction Management and Economics and Building Research and Information.