



OPEN ACCESS

EDITED AND REVIEWED BY
Stacey Connaughton,
Purdue University, United States

*CORRESPONDENCE
Juana Du
✉ juana.1du@royalroads.ca

RECEIVED 18 September 2023
ACCEPTED 27 October 2023
PUBLISHED 13 November 2023

CITATION

Du J, Akhtar N and Dou Y (2023) Editorial:
Towards 2030: sustainable development goal 9:
industry, innovation and infrastructure. A
communication perspective.
Front. Commun. 8:1296574.
doi: 10.3389/fcomm.2023.1296574

COPYRIGHT

© 2023 Du, Akhtar and Dou. This is an
open-access article distributed under the terms
of the [Creative Commons Attribution License
\(CC BY\)](#). The use, distribution or reproduction
in other forums is permitted, provided the
original author(s) and the copyright owner(s)
are credited and that the original publication in
this journal is cited, in accordance with
accepted academic practice. No use,
distribution or reproduction is permitted which
does not comply with these terms.

Editorial: Towards 2030: sustainable development goal 9: industry, innovation and infrastructure. A communication perspective

Juana Du^{1*}, Nadeem Akhtar² and Yulei Dou³

¹Faculty of Social and Applied Science, Royal Roads University, Victoria, BC, Canada, ²Department of One Belt One Road (OBOR) Research Institute, Hong Kong Chu Hai College of Higher Education, Hong Kong, China, ³School of Economics and Management, Communication University of China, Beijing, China

KEYWORDS

industry, innovation, infrastructure, communication perspective, sustainability

Editorial on the Research Topic

[Towards 2030: sustainable development goal 9: industry, innovation and infrastructure. A communication perspective](#)

In order to achieve UN Sustainable Development Goals by 2030, industrialization needs to be built on a solid and sustainable foundation that seeks an inclusive and innovative approach. The importance of innovation and research in solving fundamental social, economic, and environmental issues has grown. Efforts have emphasized on building new, eco-friendly infrastructure, while retrofitting or reconfiguring current infrastructure systems and utilizing the potential of smart technology, in order to significantly reduce adverse environmental effects and disaster risks that better utilize natural resources on a global scale and enhance community resilience and inclusion.

This collection of research papers brings a human communication perspective to rethink issues related to sustainable development, community resilience and innovation responding to the challenges and complexities of industrial and societal development in the wake of the COVID-19 pandemic. It embodies a wholistic and integrative approach to examine those core pillars of the UN sustainable development goals including people, planet, property, peace and partnership. Balancing the social, economic and environmental dimensions of sustainable development, it not only invites intellectual dialogues to frame and interpret the goal from a conceptual perspective, but also enquires into the strategies and approaches adapting to specific geographical and societal contexts, promoting inclusive industrialization, and involvement of a wide variety of stakeholders and communities. This Research Topic contains eight published peer-reviewed research papers. These studies revealed interplays and dynamic mechanisms among building sustainable infrastructure, innovative development and inclusive industrialization, looking into a grand landscape of emerging markets, including ASEAN countries, Latin American countries and China. Green finance, digital economy, and innovation culture and capacity are highlighted as main themes in this collection of research papers.

Among those studies, four articles conceptualized and studied green finance and its impact on energy efficiency and environment sustainability in a variety of social and economic contexts. For instance, a research group studied green funding, energy efficiency,

and CO2 emissions in G7 countries (Fang et al.). Results revealed that green financing is the most effective financial strategy for reducing CO2 emissions. Another study evaluated the impact of green finance and financial development on ASEAN economies' environmental sustainability (Fu and Irfan). Green finance was also explored with data collected from 33 Latin American countries, with an emphasis on the disparities in the effects of green finance, renewable energy (RE), and energy efficiency (EE) on energy poverty (Hou et al.).

Four other studies captured and contextualized “innovation” in a unique economic and societal context of China, diving deeply into the developing trends of business models and industrialization in the last couple of decades. For instance, researchers have conceptualized “digital economy” by investigating its impact on entrepreneurship activities in rural tourism in China, and developed the “Rural Digital Economy index” which could be further testified and expanded to other emerging economies (Tang et al.). Another study discussed green innovation culture as a driving force in Chinese small and medium sized enterprises (SMEs), and examined its impact on market innovation, product innovation and market performance through SEM analysis (Wei et al.). Researchers also examined the mechanism among international technology spillover, institutional quality and green innovation capability (Wang et al.). Findings highlighted the positive effect of international technology spillover on green innovation capability, and emphasized the importance of creating institutional environment to support international technology spillover, while opening up to the outside world and capitalizing on the spillover effect of international technology (Wang et al.). Lastly, the roles of technological innovation, financial development, renewable energy investment, population age, and the economic complexity index in China's environmental sustainability were investigated (Dong and Akhtar). Researchers suggested that regional variances need to be considered while designing policies to increase effective energy consumption (Dong and Akhtar).

Studies mentioned have built upon existing scholarly work, offering insights into the vibrant, fast-changing, and complicated business systems and societal environment of China. They also invite further reflections on the dynamic interplays of infrastructure, industrialization, environment sustainability and innovation on a global scale, responding to the call of the UN's ninth Sustainable Development Goal, “Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation”.

Studies collected in this special edition offer practical and policy implications regarding green financing, environment sustainability, industrialization and innovation. For instance, researchers examined the impact of the “Digital Economy” on rural entrepreneurship and proposed that the Chinese government should focus on improving the innovation environment for rural residents in the future, so that entrepreneurial activities are spontaneously stimulated by market mechanisms (Tang et al.). Another research explored the dynamic relationships among green innovation technology and carbon emission technology, and recommended that policy makers should be aware of the efficiency of labor and capital allocation of different provinces and regions,

in order to promote green technology innovation (Du et al.). From a cultural development perspective, a study recommended that Chinese SMEs should prioritize a green innovation culture in order to improve their market performance. Moving from an “energy-intensive economy” to “technology-intensive economy”, researchers also suggested that the Chinese government need to reflect on the increases of carbon emission and the current energy consumption pattern, in order to promote energy efficiency through technology innovation and responding to the aging population relating to the energy consumption structure in the society (Dong and Akhtar).

In this Research Topic, studies have turned their focus from developed economies to emerging economies while emphasizing Asian countries, such as China, as well as Latin American countries. Those research findings have provided fresh insights through the use of empirical data collected from those various countries. As these studies were recently conducted and published, they provided insightful explanations of the dynamically evolving and complex landscapes in our societies. In summary, this volume presents significant studies that offer important implications to advance the SGD goal, by reducing carbon emissions while making the industrialization process more sustainable and inclusive and fostering innovation.

We sincerely thank all of the authors who have contributed to this Research Topic, and we look forward to continuing our scholarly conversation on this fascinating topic.

Author contributions

JD: Writing—original draft. NA: Writing—original draft. YD: Writing—review & editing.

Funding

The author(s) declare that no financial support was received for the research, authorship, and/or publication of this article.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.