Chapter 8
Green Knowledge in Green Roofs and Organizational Green Innovation

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ABSTRACT

This study aims to analyze the implications of green knowledge and technology in organizational green innovation, urban green innovation, and green roofs. Green roofs can be an effective tool for cities to improve the thermal environment, save energy, combat climate change, and are an appropriate method of saving energy. The analysis is supported by the assumption that green technology is basic to organizational green innovation and urban green innovation areas practices, operations, and activities. Making the balance between urban developments and environmental issues, in consideration to sustainable development principle and its innovative green solutions. The methods employed are based on the analytical-reflective and descriptive supported with the review of theoretical and empirical literature. The analysis concludes that green knowledge sharing is relevant to create and develop green technology with positive implications for organizational green innovation, urban green innovation areas and green roofs.

INTRODUCTION

The COVID-19 pandemic is a sanitary crisis that questions many activities to become greener and more sustainable. Sustainable and green are two concepts increasingly used to mean the same, however, sustainability refers to the persistence and indefinite future of necessary and desired characteristics of

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the human subsystem within and the ecosystem (Hodge, 1997), at the same time, megacities recently are experiencing a shortage of green spaces due to the rapid growth of urbanization in the cities and the increase in the construction of different buildings. That is why it is important to consider that the sustainable urban development is essential since the expansion of city facilities need to be in line with the various aspects (social, economic, and environmental) (Gohari et al., 2023).

Organizational environmental and green knowledge learning is linked to green technology for the environmental protection to stimulate organizational green innovation, urban green innovation areas and green roofs. Sustainable development is related to decision making in the economic and social effects (Wiering et al., 2020). Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland, 1987). Urban sustainability including social and economic has been highlighted as one of the leading features of cities (Dwift Consulting, 2017). Some green trends are proposed as smart city, sustainable city, and so forth. Use of green and ecofriendly technology offers more sustainability environment with zero gas emissions to the environment and some other opportunities and challenges.

People living in dense communities tend to use public urban green innovation spaces and public parks more frequently to have more relaxation time and may travel more to the countryside for leisure, experimenting and testing new greener ways of conducting organizations concentrated on environmental sustainability, enable to introduce green innovations (Anderson et al., 2010; Stubbs & Cocklin, 2008). Organizations embracing the concept of saving money, by creating recycling programs and monitoring thermostats, focusing on environmental sustainability may contribute to support nongovernmental agencies involved in environmental troublesome areas.

The frequency of use of a green space living environment support individuals to be satisfied with public spaces and improves the social space and the mental health (Hadavi, 2017). People using public and private urban green innovation spaces attach meanings, identity, and psychological experiences to diverse types of green spaces, as described in the Place identity integrated model and environmental representation (Bernardini & Irvine, 2007). Research on green organization identity has focused on individual level (Chen & Chang, 2013). Green organizational identity supports individual tasks of organizational members related to the organizational environmental activities and strengthens the ability to cope with organizational green oriented conditions. Landscape connectivity has some differences between urban green innovation roofs and urban open space management.

Organizations are facing challenges regarding the compliance with green sustainability strategy. The deployment of a green strategy to face the negative effects that industrialization has on the environment. Organizational business sustainability considers the green growth, green branding, and green sustainable reporting. Branding sustainability enhances the ability of the organization to appeal customers concerned about the environment.

Green sustainable development combined with economic growth, social justice and progress and environmental security concepts are relevant issues in research such as green entrepreneurship in organic farming (Gupta & Vegelin, 2016; Ihnatenko & Novak, 2018; Kucher, 2019; Mohd & Norhidayah, 2016; Savickiene & Miceikiene, 2018; Shevchenko & Petrenko, 2020, Skydan et al., 2020). To make the balance between urban developments and environmental issues, and at the same time to combat climate change and global warming it is important to consider a sustainable development principle and an innovative solution (Gohari et al., 2023).

Organizations engage in green initiatives to develop sustainable competitive advantages and competitiveness (Galdeano-Gómez et al., 2008; López-Gamero et al., 2008; Wysocki, 2021). These sustainable