

Over the last decade, the new product development (NPD) ecosystem witnessed a major shift in the tendency of governments and consumers toward environmental sustainability, which resulted in substantial changes in manufacturing and supply chain (SC) strategies. The platform financing has three key features that motivate the SME entrepreneurs to participate in the regulated GNPDP programs: (i) needless of conventional intermediaries and associated challenges, the MSPs play a match-making role and enable SME entrepreneurs and investors to directly connect via a regulated digital platform; (ii) while decreasing the funding and investment costs, the MSPs enable the SME entrepreneurs and investors to reduce their fundraising and investment risks by channeling the accumulated capital into different streams (e.g., DF and EF); (iii) unlike the conventional DF mechanisms, the platform-based EF schemes are gaining significant popularity among the green entrepreneurs.⁸ By promoting EF, the MSPs can incentivize the investors and SME entrepreneurs to take part in GNPDP and cooperate with host governments in attaining their green entrepreneurship goals while achieving higher profits and improved competitiveness. In 2019, the green new product development (GNPDP) penetration rate in the U.S. rose to 37% (from 7% in 2011) and the end consumers were found to spend 5% more on eco-friendly products.¹ It has been predicted that, by the end of 2021, the sustainable products sales in the U.S. alone will have a value among US\$142.3 billion and US\$150.1 billion.² Among different sectors, transportation is recognized as one of the most polluting industries due to its substantial greenhouse gas emissions.³ Thanks to the effective intervention policies in the transportation sector,⁴ some leading car manufacturing companies have positively responded to the environmental protection programs and committed to reduce their CO₂ emissions and control fossil fuel combustion.⁵ Driven by the growing intensity of market competition and to address the rising public awareness, some SME entrepreneurs have recently begun to diversify their product portfolio by offering both green and non-green products (Tseng et al., 2019; Wang et al., 2020). Founded in 2019 in the U.K., this online platform provides quantitative and practical solutions for reducing carbon emissions in the SCs of the world's largest polluting industries such as metals, oil and gas, minerals, and agriculture; hence, tracks the carbon footprints of SMEs' SCs to determine which operations are most vulnerable to rising payable costs of the carbon tax. Offering a diverse range of regulated entrepreneurial financing facilities, such as debt financing (DF) and equity financing (EF), the MSPs connect the SME entrepreneurs to a crowd of investors and facilitate their access to a portfolio of SCF solutions (Reza-Gharehbagh et al., 2021; Yang et al., 2017; Zheng et al., 2020). With the growth of information technology and the emergence of innovative SCF solutions (Choi, 2020; Gao et al., 2018; Reza-Gharehbagh et al., 2021; Yu et al., 2020), some governments decided to partner with digital platforms and offer the capital-constrained SCs access to platform financing solutions to fund their GNPDP activities. However, due to their inherent complexities (e.g., excessively high interest rates and difficulty in securing required collaterals), these conventional methods are commonly disfavored by the SMEs (Wagner, 2021; Xu & Fang, 2020; Reza-Gharehbagh et al., 2020b). Thus, green entrepreneurship is emerged as a new strategy to address the existing conflicts between economic development goals and environmental sustainability (Wang et al., 2020).