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GREEN FINTECH FOR SUSTAINABILITY: TOWARD A CONCEPTUAL UNDERSTANDING OF ITS ENVIRONMENTAL IMPACT

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Green fintech represents a transformative intersection of financial technology and environmental responsibility, leveraging digital innovations to foster sustainable financial practices. It integrates cutting-edge technologies such as mobile banking, blockchain, and artificial intelligence to promote environmentally conscious behaviours, investments, and policies. By aligning financial services with the global push for a low-carbon economy, green fintech facilitates the transition from traditional, high-carbon financial models to ones that prioritize ecological preservation and resource efficiency. This emerging domain empowers individuals, businesses, and institutions to make informed, sustainable financial decisions, thereby contributing to global efforts to combat climate change and environmental degradation.



The proposed conceptual framework identifies several pivotal components of green fintech that directly contribute to environmental sustainability. These include sustainable investment platforms that enable funding for renewable energy and eco-friendly projects, carbon tracking tools that monitor and reduce emissions, green lending models that provide favorable terms for environmentally responsible initiatives, and blockchain-based systems that ensure transparency and accountability in green finance. Each component is designed to align financial incentives with sustainability goals, creating a robust infrastructure for environmentally positive outcomes. By integrating these tools, green fintech bridges the gap between financial innovation and the urgent need for ecological stewardship.

Green fintech plays a critical role in advancing sustainability by enabling investments in low-carbon technologies, such as solar and wind energy, and promoting circular economy practices. It enhances transparency in financial flows, ensuring that funds are directed toward genuinely sustainable projects while avoiding greenwashing. Through user-friendly digital interfaces, green fintech incentivizes eco-conscious behavior among consumers and corporations, such as adopting energy-efficient practices or supporting green bonds. By embedding sustainability into financial decision-making, green fintech supports global frameworks like the Paris Agreement and the United Nations Sustainable Development Goals, fostering a systemic shift toward a greener economy.