

A study of the Sanitation Entrepreneurship Ecosystem in India

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PhD THESIS ABSTRACT

Inadequate sanitation is one of the most pressing developmental challenges in emerging economies like India. Particularly, in contexts where ingrained diverse cultural practices, institutional gaps and financial constraints hinder the achievement of universal access to adequate sanitation. This is where sanitation entrepreneurs pave the way in reimagining and innovating solutions for pressing problems. This thesis examines the sanitation entrepreneurship ecosystem in India through a multi-stakeholder lens. The overarching objective is to understand how sanitation enterprises emerge, operate, solve and scale within a complex ecosystem of actors and influences. The study employs a qualitative multi-modal methodology, complemented by systems thinking, hierarchal modelling and crosscase analysis. The research is structured around three distinct yet interconnected facets of inquiry. First, ethnographic causal loop diagramming is used to examine how end-users and local stakeholders adopt and promote sanitation differently. It examines end-user practices and role of local stakeholders in influencing sanitation behaviour. Second, TISM-MICMAC analysis is applied to decode hierarchal investor decision-making patterns and priorities. It explores how impact investors evaluate enterprises, balancing social impact with financial return. Third, a cross-case analysis of two sanitation enterprises, Eco Femme and Ekam Eco Solutions, is conducted to unveil the enablers and challenges in the field. The findings converge on the recognition that sanitation entrepreneurship is not merely a matter of technical deployment or financial investment. Rather, it is a systemic process shaped by interdependent actors, behavioural dynamics and 9 enabling or constraining institutional contexts. Causal Loop Diagrams reveal the reinforcing and balancing feedback loops of sanitation adoption and promotion. It highlights the importance of local stakeholders in reinforcing positive habits amongst end-users. The ethnographic study reveals how habits, cultural norms, patriarchy, economic status, health, gender, local stakeholders and access to sanitation products and services determine adoption and promotion patterns. The hierarchal model reveals nine key factors which impact investors deem critical when investing in an enterprise. The study unpacks the interrelationship between these factors and their importance based on where they are placed in the model. The cross-case analysis underscores the importance of accounting hybrid success parameters, behaviour change integration, institutional navigation, scalability and ecosystem leverage through innovation and partnerships. To integrate these insights, the thesis proposes a novel three-layered framework of systemic change. The “Who” dimension highlights the interdependence of

endusers, local stakeholders, entrepreneurs and investors. The “What” dimension identifies six pillars i.e. social innovation, behavioural nudges, capacity building, stewardship, accountability and knowledge integration, that collectively underpin systemic transformation. The “How” dimension sets out the mechanisms through which these pillars can be operationalised, including green technology and innovation, behavioural interventions, bridging financing disparities, publicprivate-community partnerships and inclusive sustainability and impact. The thesis makes both theoretical and practical contributions. Theoretically, it enriches the literature on sanitation entrepreneurship ecosystem by converging three empirical studies into a holistic multi-stakeholder framework. Practically, it 10 offers policy and practice recommendations that emphasise collaboration, capacity development, financing innovation, behavioural change and accountability. The research demonstrates that sanitation entrepreneurship holds transformative potential when embedded within supportive ecosystems and guided by inclusive and systemic approaches. Its pursuit not only addresses sanitation challenges but also contributes to broader goals of dignity, health, sustainability and social empowerment.