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Case Study - Startup Piipee

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Abstract

Piipee, an award-winning Brazilian startup, is pioneering efforts to reduce urban water consumption by transforming toilet flushing practices. The Environmental Protection Agency (EPA) states that toilet flushing accounts for nearly 30% of daily household water use, each flush can consume up to 13 liters of potable water. According to Sabesp, which supplies the megacity of São Paulo in Brazil, 42% of daily water consumption is dedicated solely to toilet flushing. A similar situation occurs in Mexico, where, according to a 2019 report by UNIAM, flushing represents, on average, 40% of daily water use, the first daily use of water in Mexico. Piipee addresses this issue with a biodegradable product, using natural extracts and nanotechnology, that treats urine waste and neutralizes odors, eliminating the need for flushing. Piipee replaces the average 13 liters per flush with just 1 ml of its solution. This study examines Piipee's product development process, market viability, and environmental impact. Trials show Piipee can reduce water use by up to 30% in residential and commercial settings, drawing attention from sustainability-focused businesses and institutions. Customer feedback highlights both environmental benefits and cost savings from reduced water use. Customer feedback consistently highlights both environmental benefits and cost savings associated with reduced water usage. In conclusion, Piipee offers a scalable, sustainable solution to mitigate urban water waste, with significant implications for global water conservation efforts. This case study illustrates Piipee's potential to drive significant change in resource efficiency and serve as a model for integrating sustainability into everyday urban practices.

Keywords: flush, innovation, startup, toilets, water