

Clean Team, a human-centred approach to sanitation: initial trials in Ghana

Clean Team is a sanitation business currently being trialled by WSUP in Kumasi (Ghana). It springs from the use of human-centred design methods to approach urban sanitation from a radically new angle: asking people in low-income communities what sort of toilet they really *want*, and working from there to develop financially viable solutions that actively drive demand.



The Clean Team in action

Sanitation marketing approaches to urban sanitation typically centre around a catalogue of latrine options designed by engineers. But do poor people in African and Asian cities really want an old-fashioned latrine? Our experience suggests that, often, what they *really want* is a smart flush toilet in their home. Of course, most low-income inhabitants of African and Asian cities simply can't afford a sewer-connected ceramic toilet. Nevertheless, human-centred approaches to sanitation view people's aspirations as centrally important, and suggest that we should take these aspirations as the starting point for developing sanitation service models that are market-driven and at the same time genuinely pro-poor.

Human-centred design: exploring what people really want

The Clean Team business evolved from the Uniloo project: a collaborative venture between WSUP, Unilever and design consultants IDEO. This project focused on low-income districts of the Ghanaian city of Kumasi, where many people have no household toilet and must use grossly unhygienic public facilities. In a first phase in late 2010, IDEO used human-centred design tools like inspiration cards and shadowing to gain insight into people's sanitation needs and aspirations. The second six weeks (early 2011) were spent developing toilet prototypes and associated business models. Four different prototypes were taken to Kumasi, and each prototype was left with a family. After a few days, the team returned to gather feedback, collect and clean the toilet, and repeat the test with a new family. This phase also sought to understand users' preferences regarding placement in the home, as well as maintenance, pricing and branding. The clear winner in this process was a domestic urine-diverting cartridge toilet service, as shown below:



Early trials, initial results



Early trials

As at November 2011, we are at the proof-of-concept stage, with around 60 households currently signed up to the service, at this stage using a log-cabin toilet from Sweden. These initial trials are showing very positive user responses, and confirm that low-income householders in Kumasi are willing and able to pay for this service. The price for the service is currently 15 cedis (US\$ 10) per month, including twice-weekly emptying; this compares with up to 45 cedis per month for public toilet use by a 5-person family.

Financial data from this trial are now being used to plan business scale-up, and the process for production-line manufacture of toilets designed specifically for this market is underway. In 2012, Clean Team will be growing initially to around 1000 toilets and aiming for 30,000 by the end of 2014, through local private-sector franchisees.

Talking business: working with a consumer goods company

Central to this project has been the collaboration with Unilever, a multinational company seeking to develop its business in Africa. The project aligns with Unilever's "Sustainable Living Plan", which aims to improve people's health, reduce environmental impact, and enhance dignity and self-esteem. The intention is to negotiate a distributor agreement with Unilever Ghana to allow Clean Team operators to sell Unilever products, like soap and detergents, that people need to improve their health and hygiene; under the planned model, Unilever will drive Clean Team brand awareness through national advertising. This "co-sales" element will be *critical* to service quality and sustainability: operators will have to comply with strict service quality requirements, and operators who don't comply will lose the Clean Team brand and the opportunity to buy Unilever products at wholesale rates.

But can models of this type really reach the poorest of the poor?

Charitable funders typically aim to directly target funding at the poorest of the poor. But this project has taken a different approach, drawing on marketing principles: if you want to create demand for a product or service in a poor community, you will generally aim to serve the least poor members of that community first, creating an *aspirational* model that other members of the community will want to emulate. Serving the less poor members of the community first also makes better business sense, since this segment provides a strong customer base for early market development. Of course, a potential risk with approaches of this type is that they will only ever serve the moderately poor, not the very poor. However, our hypothesis is that social business models designed using human-centred approaches can, over the medium term, genuinely serve the poorest of the poor, as business scaling leads to declining unit costs.

And what about treatment?

The Clean Team model requires adequate systems for treatment and disposal/re-use of the faecal waste collected. Under the model to be introduced in Kumasi in 2012, Clean Team will use low-cost neighbourhood holding tanks, from which tankers will collect sludge for disposal to the existing municipal treatment facilities. However, the long-term goal is to convert the waste into revenue-generating products, creating a sustainable sanitation cycle that will help make the service more affordable to the poorest of the poor.

“It's good at night for my sick daughter, she doesn't need to go out”

Clean Team-type models focused on domestic provision are certainly not applicable everywhere. In many African and Asian cities, for example, the poorest of the poor live in single-room rented dwellings with no room for a toilet. Could Clean Team-like models be used in settings of this type? Possibly: but human-centred design methods would need to be used to explore aspirations and market potential in any given context.

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