



Private Sector Solutions for Public Health Challenges

Promoting handwashing practices across Asia

Executive Summary

Hong Kong & Ho Chi Minh City, Vietnam | April 2016

Introduction



The **Global Institute For Tomorrow (GIFT)** is a Hong Kong based independent think tank and executive education provider focused on advancing a deeper understanding of global issues. The **Global Leaders Programme (GLP)** is GIFT's internationally recognized, high-impact leadership development programme which seamlessly integrates classroom theory and field-based practice into a two week transformational learning experience.

In April 2016, twenty-five executives from global businesses and NGOs participated in the 46th **Global Leaders Programme (GLP)** in partnership with HappyTap Co. Ltd. – a Vietnamese social enterprise dedicated to providing market-based solutions to widespread challenges associated to poor water and sanitation.

Through field-research, stakeholder interviews, and site visits, participants explored issues related to water and sanitation facilities and the significant need for improved handwashing practice. Participants were invited to leverage their business acumen and leadership skills to come up with new ideas and create a business plan for HappyTap.

The proposal includes recommendations to build on HappyTap's efforts to date and to increase the sale of its flagship handwashing device (HWD) in Vietnam and the region, thereby enabling the company to become profitable whilst meeting its social mission of improving public health.

The following **Executive Summary** provides an overview of the business plan produced by the participant group and GIFT.

A more detailed analysis can be found in the final business report that is available upon request.

The Context

Globally, close to 2.4 billion people lack access to adequate sanitation facilities and close to 80% of diseases in developing countries are caused by unsafe water sources. The provision of clean water and adequate sanitation is a key factor in the reduction of sickness and poverty.

The United Nations estimates that inadequate sanitation costs the world close to US\$260 billion in economic losses and that every US\$1 spent on sanitation brings a US\$5.5 return by keeping people healthy and productive. Whilst the benefits of clean water are well known, access to it is often taken for granted and precious resources are regularly contaminated and/or wasted.



In Vietnam in the 1990s, two out of five people did not have access to improved sources of drinking water and 80% of the population lived in rural areas where tap water was non-existent and protected wells and springs were scarce. With support from international aid organisations, the government has been working hard towards reaching universal access to water and sanitation by 2020.

Today, 98% of the country's 90+ million residents have access to improved drinking water sources. Despite these notable improvements, five million people still practice open defecation and less than 10% are connected to sewerage networks with treatment. In Vietnam the transmission of hygiene-related ailments carries an estimated economic cost of US\$262 million annually.

Handwashing with soap is considered one of the most cost-effective and easy tools for alleviating the disease burden on the poor. Good handwashing practices reduce the incidence of diseases such as pneumonia, skin and eye infections, and diarrhoea-related diseases that cause the death of 800,000 children each year.

Despite widespread public awareness campaigns and billions invested in national and regional development programmes, actual handwashing practices remain severely low. Instilling a habit out of handwashing with soap and achieving scale also remain a challenge.

"Washing hands with soap is frequently referred to as among the most effective and inexpensive way to avert child deaths. It has been called the "do-it-yourself vaccine, yet despite its low cost and proven benefits, rates of handwashing with soap are very low throughout the world".

World Bank Water & Sanitation Programme (2012)

The Solution



Recognising that high awareness about health and sanitation has not translated into sustained behavioural change in handwashing practices, WaterSHED NGO, a global public-private partnership alliance dedicated to improved water and sanitation solutions, partnered with IDEO, an American human-centered design firm, to develop a prototype for a dedicated handwashing device.

The result is the first-of-its-kind manufactured handwashing device branded **Labobo**, an innovative and user-friendly product designed to bring affordable and easy sanitation practices into homes, public institutions and food & beverage outlets across rural and urban Vietnam.

Commercialised by local social enterprise HappyTap, the handwashing device is:

- **Low cost and low tech**, designed as an aspirational household product for rural and urban customers, made out strong plastics and can easily be mass-produced;
- **Brings water and soap together** in one convenient location to help instill a handwashing habit;
- **Portable and easy to refill**. The 15 liter water tank allow for 1.5 days of handwashing for a family of four.



Featured in international media



The Proposal

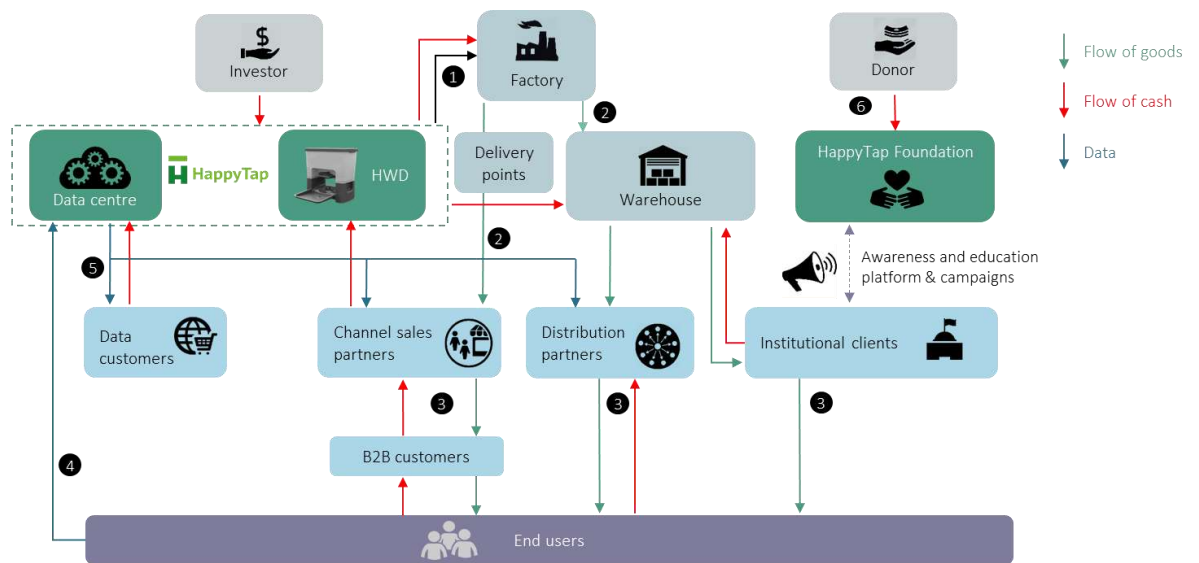
The following business proposal supports the large-scale sale and distribution of HappyTap’s handwashing device to increase handwashing practice in Vietnam and the region and to improve public health in both rural and urban locations.

Building on HappyTap’s current model for the HWD, a “generic” handwashing device is also recommended in order to attract a larger pool of clients for whom the HappyTap branding and child-friendly imagery may not be suited.

The business will leverage the advantages of sensor technology for the development of a new handwashing device to collect localised data on consumer behaviour, water and soap consumption, frequency of handwashing practice, etc. Data sent to HappyTap’s data centre can be analysed and sold to companies and civil society organisations.



Proposed Business Model



- 1 Orders for HWDs are processed by HappyTap and transferred to the factory for production. Production currently includes 2 factories.
- 2 HWDs are either delivered to the customer directly or stored in a warehouse (from year 2). For customised HWDs, channel sales partners can arrange for temporary storage at a chosen delivery point.
- 3 HWDs are sold to end-users either through channel sales partners or key distribution partners with existing platforms and networks. Institutional clients may purchase the HWD and sell or donate to end-users as part of a marketing or education campaign on handwashing.

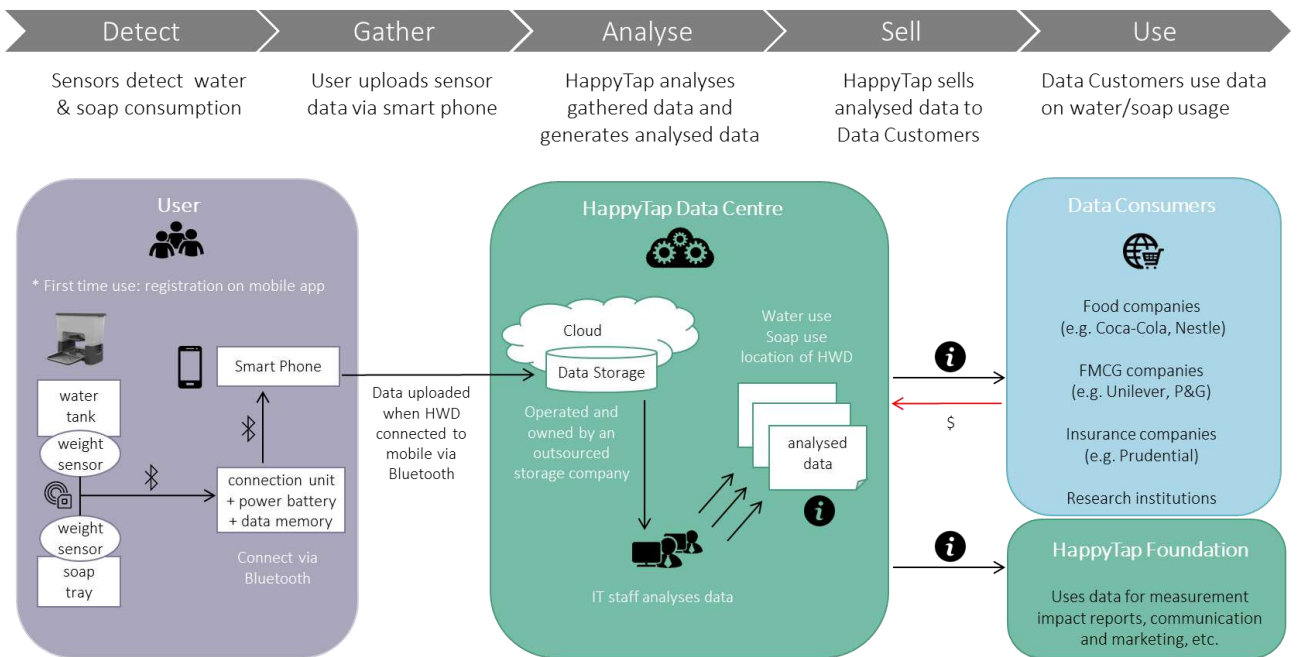
- 4 End-users register their HWD through a mobile app. Data on location, water and soap usage collected from the HWD is sent to the cloud and to HappyTap’s data centre for analysis.
- 5 Data on consumer behaviour and handwashing practice is sold to data consumers.
- 6 HappyTap Foundation receives donor funding to design and implement educational programmes and co-organise marketing events around handwashing to raise awareness and create demand for the HWD.

Sensor Technology

HappyTap's recommended product development will involve the creation of a new plastics mould to accommodate sensor technology and the additional liquid soap holder. Clients and partners also have the option of customising the device according their own branding requirements or for a specific campaign.



Data collected from the HWD will be sent to a Cloud Data Center for analysis. Cloud storage is owned and managed by an outsourced storage company but ownership of the data remains with HappyTap, unless previously negotiated with the client or partner.



Data analytics and data-driven strategies that deliver measurable results are becoming more common and essential for businesses looking to stay ahead of the curve. With more products and services available to customers, businesses that are regularly updated and informed on consumer behavior and consumption trends have a better chance to respond quickly to market signals and develop more targeted products and campaigns. Data analytics can help inform strategy and business development, customer service, marketing, R&D, operations and production.

Distribution and Channel Sales Partners

To achieve scalability and promote the bulk sale of the HWD, HappyTap's sales and marketing approach will include diversifying sales and distribution channels through a series of multiple avenues:

- Distribution partners with an interest in promoting health and hygiene would carry and distribute the handwashing device in their suite of products;
- Channel sales partners would have an option to customise the handwashing device to be used as a vehicle to increase sales of FMCGs;
- Institutional customers include NGOs or MNCs seeking to use or donate the HWD as part of an existing or new health and hygiene marketing or educational campaigns, etc.

Revenue streams	Description	Potential partners & clients
Distribution partners	<ul style="list-style-type: none"> • Provide access to existing distribution channels and network • HWD as new or complementary product in existing product portfolio • Can provide platform for HappyTap or co-join marketing events to promote the HWD • Can benefit from HappyTap mobile app to promote own products 	iCare Benefits, DSKH, Women's Union, sanitation convenience stores, etc.
Channel Sales partners	<ul style="list-style-type: none"> • Option to customise or accessorise the HWD to meet marketing needs • Option to bundle HWD with existing products to create a health or beauty station • Will have existing network of distributors and retailers to sell HWD 	FMCG, F&B, and Insurance companies, suppliers of equipment and furniture for food outlets, etc.
Institutional clients	<ul style="list-style-type: none"> • Bulk orders of HWD to use in educational and/or marketing campaigns related to public health and hygiene • HWD and its associated social benefits as a vehicle to advance social mission of organisation or company • HWD to be used or donated as part of programme or campaign • Option of customise HWD to meet marketing needs 	NGOs, government agencies, schools and kindergartens, development aid agencies, MNCs, etc.
Data consumers	<ul style="list-style-type: none"> • Interest in receiving analysed data on handwashing practice, and water & soap usage to better inform product development, health insurance policies, geographical focus for future campaigns, marketing activities, etc. 	FMCG, F&B companies, research institutes, insurance companies, government bodies, etc.



HappyTap Foundation

HappyTap's low sales volumes are primarily due to a weak market demand for a dedicated HWD the benefits of which remain not well understood. Given the costs typically associated with mass marketing campaigns, it is suggested that HappyTap be separated into two distinct entities:

- **HappyTap company** for the production, sales and distribution of the HWD and;
- **HappyTap Foundation** to manage funding from donors, lead all not-for-profit activities and drive marketing efforts

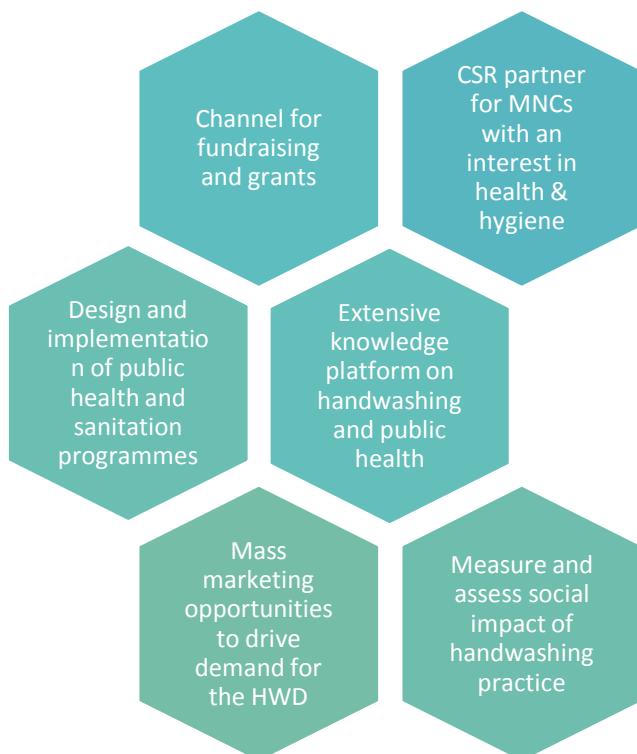
Besides fundraising, the Foundation will be responsible for the design and delivery of educational hygiene-related campaigns and programmes to create demand for the HWD.

To increase the impact of marketing campaigns, the Foundation will collaborate with partners from both the development and private sectors on existing and large-scale hygiene- and sanitation-related campaigns and programmes (national, regional and global).

The Foundation would also be responsible for coordinating research related to handwashing practice and improved hygiene with relevant partners.

Registered as a charitable organisation, the Foundation can also seek pro-bono services from PR or advertising companies to develop a compelling brand image, marketing material and campaign events.

The Foundation will finally be able to leverage data collected from the HWDs on handwashing practice to lead and coordinate measurement impact studies in partnership with international NGOs, aid agencies, research institutes and universities.



Social impact

Handwashing with soap is one of the most efficient and cost-effective ways of improving health outcomes. Yet there are very few commercial solutions that are affordable, can be produced and marketed at scale and have the potential to have a lasting impact on handwashing practice and behavioural change.

The potential social and economic impact of HappyTap and its handwashing device is immense. Regular users of a HWD are more likely to have a higher awareness about the risks associated to poor sanitation and hygiene and to encourage their family members to wash their hands at critical times. With every HWD sold and utilised, HappyTap not only grows the company but also contributes to solving a pressing public health need amongst households, communities, and workplaces.

By measuring social impact, HappyTap can:

- Drive accountability to investors and donors;
- Contribute to a growing pool of knowledge;
- Deliver stronger communication and more comprehensive reporting;
- Improve processes and management.

Quantitative and qualitative indicators can reinforce awareness campaigns and lead to greater demand. Potential indicators include:

Data-based indicators

- HWD sensors to track location water and soap levels over time to provide data on consumer behavior, handwashing practice and frequency
- Number of end-users in any specific location and number of educational campaigns run over a specific time
- Expenditures on healthcare and/or disease-related issues

Survey-based indicators

- User satisfaction recorded through surveys, social media platforms and HappyTap mobile application
- Surveys in schools to document change in mindsets of children using or exposed to the HWD at home or in school
- Surveys of employers to determine impacts on behaviour of the individual and their family or community

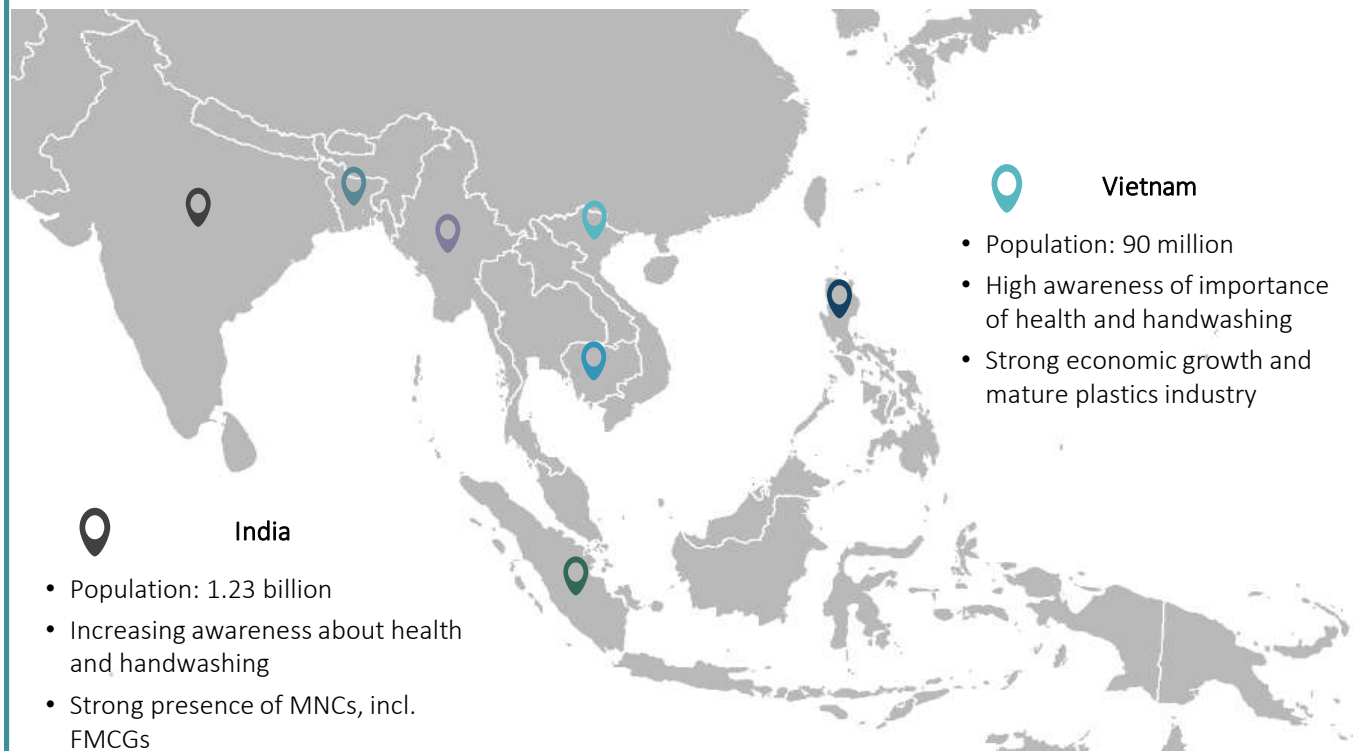
Expected social and economic benefits

- Reduce household expenditure on healthcare (medication, transportation and lost days at work)
- Strong correlation between improved health and economic performance
- Reduce the gap in access to sanitation solutions between end-users from different income brackets
- Partnership with the Women's Union at communal and district level to strengthen community ties and engagement



Key markets for business growth

Key markets identified as having a high need for improved handwashing practice and sanitation facilities amongst low income households.



India

- Population: 1.23 billion
- Increasing awareness about health and handwashing
- Strong presence of MNCs, incl. FMCGs
- Opportunity for cheaper production to reach scale

Bangladesh

- Population: 157 million
- Growing number of urban poor
- High migration from rural to urban areas, putting strain on water and sanitation facilities

The Philippines

- Population: 94 million
- 8% of the population without access to improved sanitation
- Congested slums in urban areas

Indonesia

- Population: 250 million
- Limited sanitation facilities in both rural and urban areas
- Economic losses due to poor sanitation equivalent to 2.3% of GDP

Cambodia

- Population: 15 million
- Limited access to adequate water and sanitation facilities, especially in rural areas
- Capital Phnom Penh close to South Vietnam's plastics factories

Vietnam

- Population: 90 million
- High awareness of importance of health and handwashing
- Strong economic growth and mature plastics industry

Myanmar

- Population: 52 million
- MNCs entering market and eager to tap into large and growing consumer market
- Notable disparities between rich and poor

For more information on the HappyTap project please contact Helena Lim at hlim@global-inst.com or +852 3571 8133

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