



Handwashing Device Commercialization

IMPLEMENTATION PLAN

Version *1.0*
07/May/2012

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1 Introduction

1.1 Purpose

The commercial launch of a handwashing device represents an innovative part of the solution to an immense, global, public health challenge. In Vietnam alone, the economic costs due to poor sanitation are estimated at US\$262 million per year. In rural Vietnam, only 6.1 percent of people wash hands with soap before eating. Similarly low percentages of people wash hands with soap before and after baby changing, after toilet use and before food preparation (a.k.a. the critical times). Effective handwashing with soap in Vietnam would significantly reduce an estimated 900,000 deaths per year from scabies, helminthes, hepatitis A and trachoma. It would also lower the substantial economic and health burden imposed by diarrheal disease and respiratory infections – two of the top three causes of child mortality in the Lower Mekong region.

Furthermore, the threat of pandemic flu is ongoing. Handwashing with soap after handling animals has been shown to be a significant barrier against the spread of contagious infections. Vietnam is host to the highly pathogenic H5N1 avian influenza, for which handwashing with soap is a key prophylaxis.

1.2 Project Overview

Following extensive field research in Vietnam and Cambodia by WaterSHED and WSP, WaterSHED has completed the development of a marketable handwashing device prototype that can facilitate proper handwashing at critical times. The handwashing device occupies a designated space that brings together water and soap, ideally in close proximity to the latrine or the food preparation area. It represents the missing hardware to complement the software of behavior-change messaging.

This project will test market the innovative low-cost handwashing device in at least two geographic areas in Vietnam with the explicit goals of testing potential sales and distribution models; validating key business assumptions; developing a roadmap for - and recruiting the entrepreneur partner(s) to implement – product mass rollout.

1.3 Implementation Constraints

Schedule:	12 months ending April 23 rd 2013
Budget:	\$100,000
Resource availability:	Project management and budget support from WaterSHED
Potential additional resources:	1) WSP staff support; 2) project management intern; 3) Advisory and Steering Committee members; 4) Budget from Unilever, Vietnam

1.4 Product Prototype



Details:

- Container may be used with or without stand
- Smooth round surfaces ease cleaning wide “hands only” water spray
- Self-draining soap dish
- Soap dish in protected space
- 420mm - W; 410mm - D; 496mm – T
- ~15L water container molded from translucent HDPE
- Opaque removable ‘sealed’ lid
- ‘Shower’ tap built around market-available ball valve
- Wastewater catchment basin with drainage hole and hose barb
- Opaque support stand designed to nest with common plastic stool
- Wall-mount attachments

2 Management Overview

2.1 Description of Implementation

There have been enormous investments in handwashing behavior-change campaigns (BCC) and information, education communications (IEC) campaigns in Vietnam.

The primary challenge associated with low rates of handwashing is no longer primarily a lack of awareness among target populations. Instead, it is the lack of a fixed place to practice handwashing enjoyably, conveniently, and effectively at the household. A fixed place serves as a physical reminder to wash hands at critical times. Several NGOs and governments have tried to address this issue by providing tippy-taps, splashy jugs, tumblers, hollowed gourds, containers with pop-up valves, and plain tapped buckets; but none have seen sustained uptake as well as continued, proper use by their beneficiaries. WSP research in Vietnam revealed that in Vietnam, as in Cambodia, most people do not want a do-it-yourself solution; they prefer something that is purpose-built and aspirational.

Building on the model demonstrated by WaterSHED’s successful ‘Hands-off’ sanitation marketing program in Cambodia, WaterSHED proposes to use the power of the market to address consumers’ latent demand for affordable and attractive household products – including handwashing stations. As in the case of toilets, there is a market failure in that suppliers do not offer attractive handwashing products because they underestimate the market opportunity –

mostly due to unexpressed consumer demand. A vicious cycle exists in that consumers do not express demand for products they have never experienced or known to exist (e.g. attractive handwashing stations). The government / NGO failure has been to focus solely on BCC & IEC; and/or to offer unattractive, (often subsidized), poorly designed handwashing products, which erodes the perceived value of such devices. WaterSHED will use its market-based approach to prove that there is a significant market opportunity available to private sector actors that can deliver an attractive, effective product at an affordable price to BOP consumers.

2.2 Points-of-Contact

WaterSHED
Geoff Revell, Program Manager
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geoff@watershedasia.org

2.3 Major Tasks

1) **Preparation Stage:**

- a. Recruit advisory / steering committee membership
- b. Begin production of inventory of prototype devices for test-marketing
- c. Contract business development and marketing firms
- d. Hire project field team to lead on the ground activity

The preparation stage will be led by WaterSHED and will be completed by August 23rd, 2012.

2) **Test-Marketing Stage:**

- a. Trigger mapping process for sales and distribution options
- b. Develop rapid-prototype sales tools, recruit and train sales team members
- c. Conduct iterative testing of tools and models to refine approach
- d. Collect target market metrics

The test-marketing stage will require majority inputs from the field team and the marketing firm, with project management support from WaterSHED and WSP.

3) **Operations and Scale-Up Planning Stage:**

- a. Identify potential investor and supply chain partners
- b. Analyze sales data and information collected, both qualitative and quantitative
- c. Undertake financial modeling of larger scale roll-out
- d. Develop and share roll-out strategy

The final stage will bring together the inputs to create a plan for scaling-up production and distribution. Significant inputs will come from the business development firm with support from private sector partners, the field team, WaterSHED, and the marketing firm.

2.4 Detailed Implementation Schedule

See Appendix 1.

2.5 Implementation Support

Staff from WSP Vietnam and the members of the Steering Committee will provide ongoing support and advice related to the enabling environment factors that will influence the success of each major task. The Steering Committee will be comprised of members that represent hygiene stakeholder organizations, including Government, the Women’s Union, donors, and NGOs from the Vietnam WatSan Group – Sanitation & Hygiene Sub-Working Group.

2.6 Facilities

Staff from WaterSHED and WSP will use existing facilities for project management and support activities.

The field team and sales team will be field-based and will often work with local government and Women’s Union at their office sites.

For some project meetings organized as per the implementation plan, facilities costs will be borne by the project budget.

2.7 Personnel

WaterSHED	Geoff Revell	Project Manager
	TBD	Business Development Lead *
	TBD	Marketing Consultant *
	Nguyen Trung Hieu, TBC	Project Preparation Coordinator
WSP	Nguyen Minh	WSP Liaison and HWI Coordinator
	Nguyen Kim Nga	Consultant / Advisor
Marketing Firm	TBD	Marketing Consultant
	TBD	Trigger Mapping Facilitator
	TBD	Market Researcher
Business Development Firm	TBD	Senior Consultant
	TBD	Field Consultant

*core field team

3 Test-Marketing Stage Details

3.1 Trigger Mapping Process

Trigger Mapping is a process to visualize all the ways a target market may be “triggered” to change behaviors, or in this case buy a *HappyTap*. It would also focus on evaluating potential distribution and retail channels.

During the Trigger Mapping session, project team members, technical experts, and private sector advisors will identify:

- Target market characteristics such as knowledge and skills, motivators, triggers, and headaches with their current situation
- Strengths and weaknesses in the distribution/retail channels as we outline the “customer journey” or the process the target market would take to buy a HappyTap.
- Specific trigger points in the “customer journey” that nudge the target market to buy, not buy or to stop using the Happy Tap

- Key messages that may trigger the target market to talk about the Happy Tap, use it, or recommend it to a friend
- Ideas for Pilot sales toolkit(s)

The Trigger Mapping should occur before the distribution channels are finalized. Research preparation before the session will be done with WaterSHED, WSP, and other relevant technical and business experts.

Time for Completion: 2-3 Weeks (dependent on availability of team for interviews).

3.2 Marketing Brief and Prototype Sales Tools

The Trigger Mapping Brief will assist Marketing Firm in developing content for the Marketing Brief(s) for all the Prototype Sales Tool(s). Prototype Sales Tools can range from logo and box design to flipbooks to posters to site sellers. The Marketing Briefs will confirm which tools will be developed, as well as identify both key and supporting messages and all necessary design elements that go into them. After agreement on the briefs, the Marketing Firm will begin development of prototypes. They will then present the prototypes to WaterSHED & the HappyTap commercialization team prototype test.

Time for Completion: 3-4 Weeks (dependent on revisions and approvals)

3.3 Rapid Prototype Sales Tool Testing

The Marketing Firm will develop a simple testing tool to be used by the field team and sales team to conduct a rapid prototype testing. Testing will involve using the prototype materials as if they were the final tools with actual customers.

Testing as is if they are final tools allows us to get a quick “gut check” to:

1. Evaluate if key messages are understood
2. Evaluate if tools are easy to use
3. Allow field staff an opportunity to provide feedback on how they like using the tools and if there are any red flags or ideas to significantly improve the tools before roll out to pilot

Due to budget constraints, the Marketing Firm would only assist in providing the testing tool and watching them in use. Then the consultants would discuss with potential sales people the key findings and agree on the prototype revisions required.

Time for Completion: 2-3 Weeks for testing and review key findings.

3.4 Final Vietnamese & English Tools, Training Guide, and Training to Sales Team

- Final Pilot English/Vietnamese Tools
The Marketing Firm will produce the final English/Vietnamese pilot tools. This would include logo, packaging, and sales toolkit tools.
- Training Guide

The Marketing Firm will create a brief training guide explaining how to use each of the tools. This would be used as a resource for pilot sales team.

- **Training of Key Staff**
The Marketing Firm will provide a training session for key pilot sales team staff. The tools will be simple to use and learn, and come with a Training Guide.

4 Outstanding Issues

4.1 Budget

At the time of the initial application to USAID DIV, WaterSHED had received the commitment from Unilever-Vietnam to contribute approximately \$115,000 towards the commercialization of the HappyTap. This funding would be primarily used to produce an inventory of prototype handwashing devices for the test-marketing stage of this project, and secondly to offer Unilever hand soap on a promotional basis to every customer purchasing a HappyTap device.

Between July 2011, when the application was submitted, and April 2012, when the project kicked off, Unilever's commitment remained outstanding. However, after eight months of uncertainty as to whether or not this project would continue, we must acknowledge the risk that Unilever's CSR funding priorities could have changed.

While WaterSHED's project management staff is continuing to work to confirm Unilever's support and commitment, we must mitigate this risk by engaging other funding partners at the outset of the project.

4.2 Cash Flow

Due to the above-mentioned budget issue, we must also consider the cash flow implications. The production of machine tools needed to create the initial inventory of prototype devices is necessary before the test-marketing stage can begin. The project team will investigate how to prioritize this activity within the budget and timeline constraints.

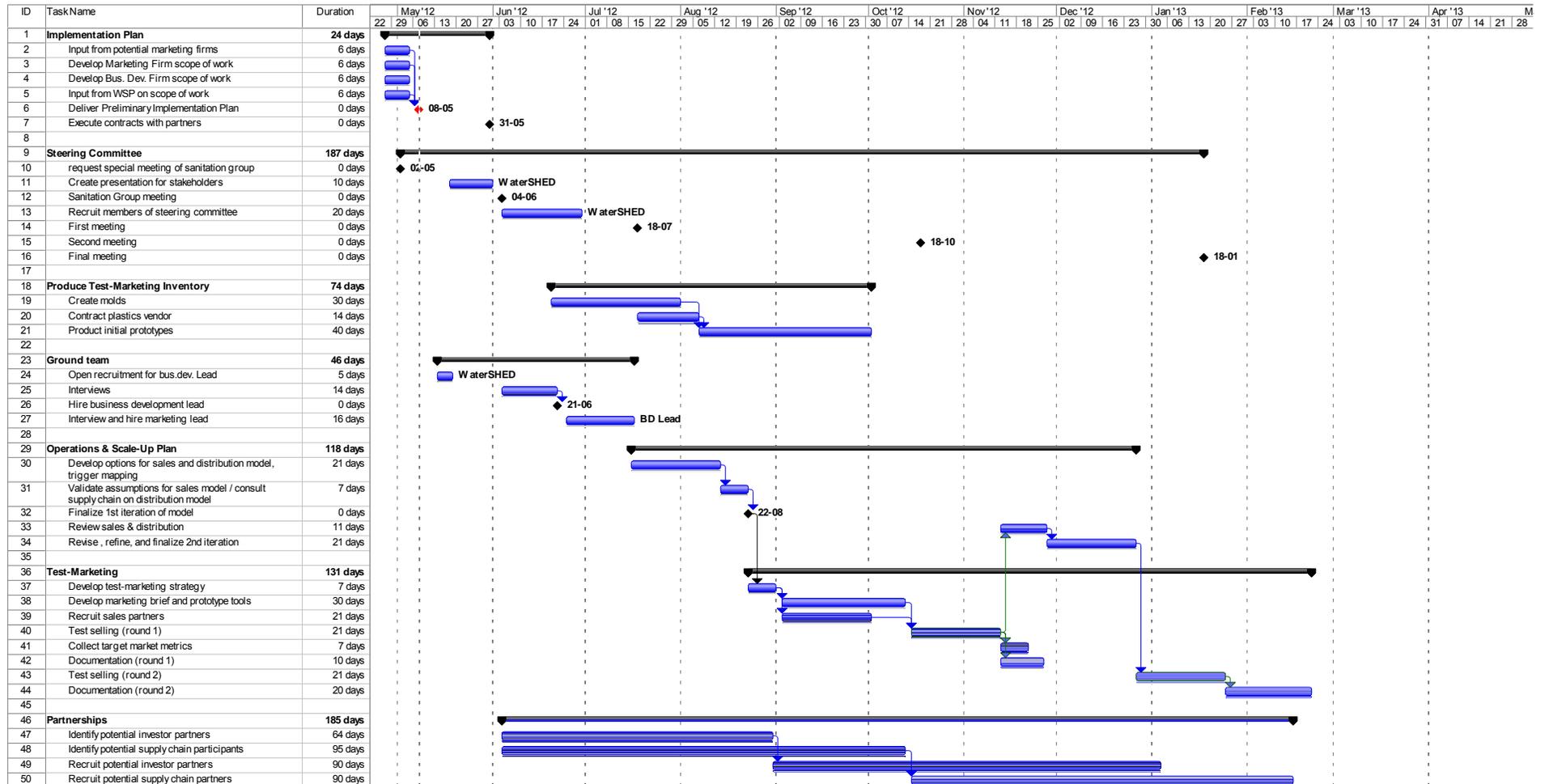
4.3 Site Name or Identification

The discrete locations for the test-marketing stage of this project will be determined with input from project stakeholders, but will likely be across two provinces in Southern Vietnam in proximity to the plastics manufacturer.

4.4 Acceptance Criteria

The acceptance criteria for each of the major tasks outlined above will be determined with input from the USAID DIV Agreement Officer Representative (AOR), the Steering / Advisory Committee, as well from the HappyTap project team. Acceptance criteria will be presented in the revised implementation plan due August 23rd 2012.

Appendix I: Expected Implementation Schedule



August 20, 2012

Geoff Revell
Executive Director
WaterSHED Cambodia
#39C Street 430 (corner of Street 476)
Sangkat Toul Tompong II, Khan Chamkarmon
Phnom Penh

RE: HappyTap Growth Strategy

Dear Geoff,

I'm happy to submit EMC's revised proposal for writing the HappyTap growth strategy over the next two months. With our experience in developing investment prospectuses, rural market development, and financial modeling, I think the EMC team can bring a lot of value to this project.

This proposal is structured as follows:

Project Background	3
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I very much look forward to discussing this with you soon.

Cheers,



Gordon Peters
Manager
Emerging Markets Consulting

“This proposal includes data that shall not be disclosed outside the client and shall not be duplicated, used, or disclosed — in whole or in part — for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offer or as a result of or in connection with the submission of this data, the client shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the client’s right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in all sheets of this proposal.”

Project Background

WaterSHED has developed a potentially sustainable, scalable business to sell a hand washing device to rural households across Vietnam. The HappyTap is a household hand washing station that integrates hand washing into families' daily routines, thereby improving hygiene and reducing the spread of diseases. It has been awarded a USAID Development Innovation Ventures (DIV) grant for a pilot sales study.

This brief proposal has been developed for EMC to provide a strategic growth plan and financial model for the roll-out of the HappyTap beyond the sales pilot.

Deliverables

EMC will research and deliver an overview report on the Happy Tap project that will form the basis of the growth plan. This report will include

- Potential impact and scale of a HappyTap marketing program;
- Baseline indicators to track the success of the HappyTap marketing program;
- Recommendations for team and management structure.

After a client review of the Phase 1 report, EMC will develop a formal business growth plan for the HappyTap in Viet Nam, including

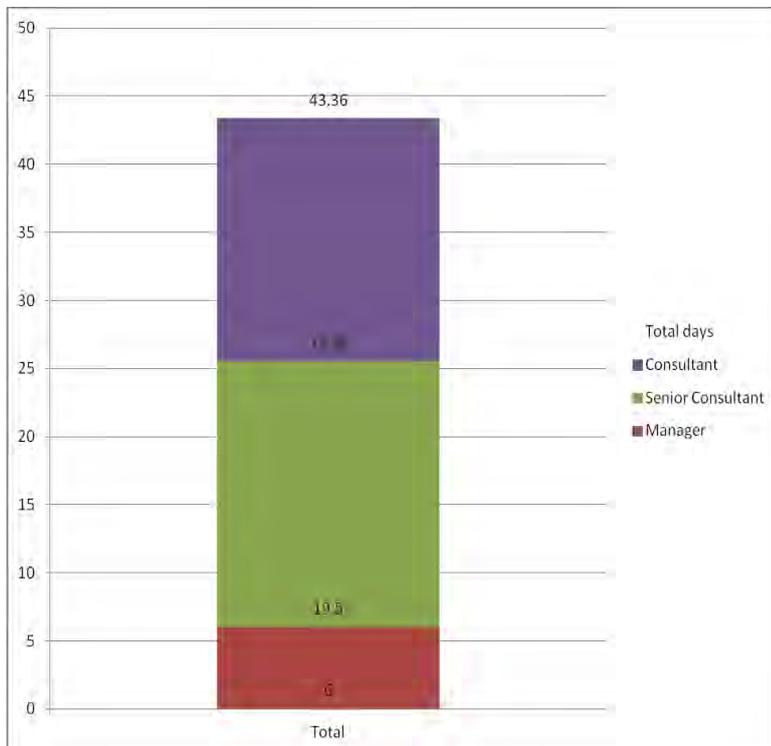
- High-level business growth strategy for the HappyTap
- High-level implementation plan for the HappyTap business growth strategy

Financial Proposal

Level of Effort

The Figure, below, provides an illustration of the level of effort for the project.

Figure 2: Total number of days by resource



Financial Proposal

The total budget for the proposed project, including professional fees and estimated project expenses, is US\$20,266 including VAT, as can be seen in the table below.

Table 1: Preliminary budget for Phase 1

PROJECT BUDGET		
EMC Professional Fees	\$	17,580
EMC Project Expenses	\$	844
Sub-Total	\$	18,424
VAT (10%)	\$	1,842
Grand Total	\$	20,266

A breakdown of the project expenses is presented below, as one trip is expected to Ho Chi Minh City over the course of the project. (Transport within Vietnam to be provided by the WaterSHED team).

Table 2: Project expenses

Expenses	Unit cost	Amount	Unit	Total
Visa to Vietnam	\$	45	1 visas	\$ 44
Travel -- airfare (HCMC)	\$	400	1 round trip	\$ 400
Travel -- accom and meals (HCMC)	\$	200	2 days	\$ 400
Total Expenses				\$ 844

Team Biographies

Mark Taylor – Managing Partner

Mark has led teams on projects involving SME development, NGO sustainability and commercialization, strategic business planning, market sizing and feasibility studies, business modeling and analysis, poverty alleviation and grassroots business development, reflecting EMC's work serving both private sector development and business consulting demands.

For business consulting clients, Mark successfully guided a feasibility study for an office tower construction project in Cambodia, implemented by Hyundai Amco. He also has managed the development of several strategic investment plans for investors in Laos.

In private sector development work, Mark has taken a lead role on value chain and market access studies for clients such as the World Bank/IFC, USAID, EU, UNDP, and SNV. He led the analysis and reporting of GTZ Laos' published Enterprise Survey in 2007 and in 2009 as well as in EMC's production of an Export Booklet for Cambodian SMEs – also published. His experience in CSR-related activities and interventions to improve competitiveness and promote broad-based growth has been leveraged through a range of EMC client projects. In 2009 Mark was selected as an Auditor for the Donor Committee for Enterprise Development (DCED) standards for results measurement in the field of PSD.

Before joining EMC, Mark was Founder and Chapter President of Net Impact, Thailand, and held consultancy roles for: the World Bank's Multilateral Investment Guarantee Agency, performing analysis on WB guarantee projects; POEMA automotive equipment in Brazil; and Interwise, where he managed the Microsoft and Applied Materials relationships. He also worked at AT&T Wireless, Real Networks and IBM.

Gordon Peters – Manager

Gordon has been consulting with businesses and the development sector in emerging markets since 2002. He has led EMC teams on business consulting projects in strategic business planning, trade promotion, market sizing and market assessments, feasibility studies, and business modeling and analysis.

Gordon has extensive experience analyzing the Cambodian investment climate from his work in private sector development. Gordon analyzed foreign investor perceptions regarding their investments in the Foreign Investor Perception Survey, a part of the World Bank's Trade Facilitation and Competitiveness Project. He has led teams on trade facilitation and trade process analysis and strategic planning for industries, as well as improvement of the business enabling environment. For the UNDP, Gordon worked with the EMC team to develop a number of market value chains in Cambodia with suggested interventions to grow domestic value-addition. In addition, he plays a senior management role on the Export Market Access Fund, which is a project funded by the World Bank that supports companies and associations in Cambodia to increase their export development

For business consulting clients, Gordon has taken a lead role on developing a strategic business plan and investment documents for a leading IT company in Cambodia. He has also successfully led multiple business feasibility studies for potential market entrants and international investment funds. Recently, Gordon has led an EMC team to deliver a business plan and financial model for a potential investment in

the rice industry. He also worked with the EMC team to complete market research for the Hyundai/Amco tower in Cambodia.

Prior to EMC, Gordon has had extensive experience advising businesses, non-profits and international aid organizations in Southeast Asia, Central Asia, Africa, and the United States. He guided a technology social enterprise in Cambodia in expanding operations from one to three offices, while the organization tripled in revenue and employees. Gordon has also advised numerous Internet and Communication Technologies (ICT) projects in Uganda, Syria, Mali, India, Brazil and Zimbabwe. Specifically, he focused on profitable and sustainable internet centre operational models as well as small enterprise management training programs. Additionally, Gordon has led the implementation of multiple phone and web-based monitoring and evaluation systems throughout Asia.

Gordon started his career with the leading consulting firm Bain and Company, where he developed corporate and business unit strategies for various clients across multiple industries including wireless telecommunication, energy, and healthcare. While at Bain, Gordon conducted extensive analysis including business modeling, customer segmentation, as well as implementing best practices across a network of business units.

David Totten – Senior Consultant

David joins EMC from a background in software and telecommunications. He lived and worked for several years in Russia and CIS, launching businesses for two multinational telecommunications equipment companies. This work encompassed regulatory compliance, establishment of customer service operations, sales and marketing for a broad range of domestic and international blue chips and telecom operators. This was followed by similar work in Eastern Europe and in particular Greece, where David worked with a range of nascent telecoms service providers seeking to establish operations in a newly liberalized telecommunication services market. Prior to arriving in Cambodia, David was on the management team of a UK software company developing call centre and customer service applications. During his 3 year tenure, the company developed from a small domestic orientated supplier to one that sold solutions worldwide, in the process beating multinational competition and many local challengers.

Immediately prior to joining EMC, David worked for 2 years as an enterprise development advisor for Voluntary Service Overseas. Based in Battambang, his role involved working with local Cambodian NGOs to facilitate a more market-oriented approach in their livelihoods programs. Since joining EMC as a senior consultant, David has been working on business planning for a major information technology group, as well as developing investment opportunities in the tourism, aquaculture and swine industries.

David holds a BA Business Administration from Middlesex University, United Kingdom and a Diplom Europaisches Betriebswissenchaft from Reutlingen University, Germany. He is a U.K. national.

Thy Khemra – Consultant

Khemra joined EMC as a Consultant in 2010. He has been involved in strategic development for the national swine industry as well as market research in the office and commercial property leasing market.

Prior to joining EMC, Khemra analyzed businesses as a research analyst at Tong Yang Securities, a Korean investment bank. There, he was involved in developing business plans for the forthcoming Cambodia Stock Exchange, as well as analyzing potential companies and industries for IPO and M&A deals. As a research assistant, he also supported a team of financial experts set up by Japan's Ministry of Finance to conduct a feasibility study on establishing bond markets in Cambodia and Laos.

A Fulbright Scholar, he holds an MA in Economics from New York University in the USA and a BSc in Economics from Ritsumeikan Asia Pacific University in Japan. He has particular interest in financial sector development. Khemra is a Cambodian national.

Relevant Client Project Experience

Market Entry, Commercialization and Marketing Experience

Commercialization Strategy and Business Planning for a Ceramic Water Purifier – International Development Enterprises

IDE manufactures and markets the Rabbit brand ceramic water purifier (CWP). To help develop an innovative, sustainable, and market-based solution to the problem of poor-quality drinking water throughout Cambodia, EMC developed a “National Commercialization Strategy” for the CWP which aimed to involve, to the extent possible, private sector firms in the manufacturing, distribution and sale of IDE’s CWP. Based on the success of the national commercialization strategy, EMC was further requested to develop a comprehensive five-year business plan for the ceramic water purifier business based on both export and domestic sales.

In the commercialization strategy, the EMC team built a market demand model using census data, interviews with potential customers, historical sales and assumptions relating to adoption and willingness to pay. The team also developed a detailed set of economics for each segment of the value chain – evaluating costs, required margins and expected contribution at varying sales volumes. Finally, the team developed a comprehensive implementation plan highlighting priority provinces and areas of focus.

For the business plan, EMC developed a comprehensive strategy for widespread adoption of the product through increased marketing and exploration of export markets. The business plan included a detailed set of financials, prepared by EMC, reflecting expected sales, COGS, operating expenses and required investment. Finally, given the social nature of the product and expectation of donor/philanthropic investors, EMC developed a detailed M&E program for the product and business to support investment.

Customer and Marketing Analysis for Phnom Penh Tower - Hyundai AMCO

Following a successful feasibility study carried out by EMC, AMCO (the construction subsidiary of the Hyundai corporation) commenced construction of Phnom Penh Tower, a high-end office block in the Phnom Penh central business district. EMC was commissioned again to complete a marketing survey to identify the needs and tastes of potential office and service provider tenants, assess market trends in the real estate sector, and identify prospective tenants. EMC conducted primary and secondary research, interviewing more than 50 potential tenants and 20 real-estate experts for a market survey for commercial leasing market in Phnom Penh. The collected data was analyzed to assess the market preferences and provide recommendations to our client to support the marketing launch and tenant procurement phase of Phnom Penh Tower.

Cassava Value Chain Study – UNDP

EMC conducted a comprehensive study of the Cassava value chain in Cambodia in order to build the capacity of the cassava agro-industry. EMC identified and examined opportunities for commercialization of cassava, cassava based agro-food products and bio-fuel.

The project team's methodology to identify and analyze issues relating to the development of the cassava industry used a hypothesis driven approach – one that focused on determining overall industry attractiveness, competitiveness and potential sweet-spot opportunities to support market-driven (and business-driven) recommendations, such as through value-managed relationships and industry collaboration.

The first phase of the project began with desk review and analysis and was followed by over 60 interviews with stakeholders and industry experts. Primary data was then captured during field missions to eight

provinces, further elucidating industry practices and enabling a clear understanding of the cost structure and margins of various industry segments and players.

Core analytical tools employed in this value chain analysis (taking into account export performance, world market and domestic supply conditions) included five forces framework and 4 C's analysis (cost, competitors, customers and capabilities) and provided a more granular, firm-level assessment of Cambodia's relative cost position vis-à-vis other competitors in the cassava markets under consideration.

District Business Opportunity - GIZ Cambodia

EMC Cambodia was contracted to conduct an external assessment of economic and business opportunities in the three districts of Puok, Angkor Chum and Varin. The consultancy recommendations were considered in parallel with the results of a participatory assessment of economic activities in the districts to determine the next Regional Economic Development Program (RED) project design priorities. The project specific objectives were to highlight each district's comparative and competitive advantages, identify possibilities for public-private partnerships with Siem Reap town businesses, and to analyze pro-poor growth relevance of identified competitive advantages and PPPs.

EMC conducted the project in four phases. First, EMC provided district economic profile and SWOT analysis by gathering and analyzing socio-economic data on the districts. EMC then developed the conceptual framework for identification of business opportunities. Using this framework, EMC identified and prioritized specific business opportunities and presented preliminary recommendations for stakeholder feedback, which was incorporated into the final recommendations.

Three Value Chain Branding - USAID Cambodia, MSME Project

DAI (MSME) commissioned Emerging Markets Consulting to determine the branding opportunities available to the MSME Project's three value chains - swine, aquaculture, and tiles. A situation analysis was developed for each value chain through fieldwork and discussion with value chain participants as well as workshops with the MSME team. From this, branding opportunities could be developed. The primary project objective was to define branding solutions that would sustain and leverage the gains already made by the MSMEs, so that the three value chains could continue to improve competitiveness and increase the value and volume of sales. A second project objective was to determine interventions and develop a practical implementation plan that would contribute to the realization of the branding solutions.

EMC approached the project as a traditional business consulting engagement in performing the following analyses: value chain structures and product features; market sizing and segmentation; measurement of demand for the most attractive market segments; and an assessment of participating companies' capabilities to deliver on market demand.

Market Entry Feasibility and Strategy - SK Telecom

EMC produced a market entry feasibility study and strategy for a leading regional telecommunications firm. Senior members of the EMC team designed and conducted the feasibility study based on a "top-down" and "bottom-up" market sizing approach. EMC also provided market entry strategy development, including competitor analysis, customer analysis and segmentation, data analysis and modeling.

Research techniques included: conducting focus groups with customer segment representatives, distributors and retailers; an investigation of the supply chain for non-CDMA handsets; desk and internet research; data collected from relevant Ministries; and broad field research in three provinces.

Business Planning and Establishment of Cambodia's First Private Equity Investment Fund – Prosperity Investment Specialized Bank

EMC provided a range of services in support of the establishment of operations in Cambodia of Prosperity Investment Specialised Bank. The team's role has included business planning and launch support, as well as the provision of strategic guidance for the launch of a third-party ATM service. Most significant, EMC worked to define a path to the establishment of the first Cambodia-domiciled Investment Fund, including

liaising with regulators, investigating existing legal frameworks and business planning in the lead up to development of a prospectus.

Design and Stakeholder Management Experience

Agribusiness Development Facility Strategic Planning – NZAID

EMC delivered a strategic and operational plan for NZAID’s Cambodia Agribusiness Development Facility using a market-led approach, developing a business-centric theory of change whereby the Facility has an impact on poverty “up the supply chain” of its customers/clients. EMC brought together a range of NGOs, private sector partners, and other stakeholders to design the facility, leveraging the skill of each stakeholder group to develop and grow agricultural businesses. EMC then provided a governance and management structure for the Facility, as well as Terms of Reference for key personnel.

EMAF - Ministry of Commerce & The World Bank

The Export Market Access Fund (EMAF) is a \$1.6M co-financing facility established to support Cambodian businesses and associations to increase export sales. EMAF provides financing to help cover the costs of the full set of eligible activities necessary to sell into export markets and increase competitiveness – from supporting research on new potential markets, helping to pay for attendance at key trade shows, and by helping to achieve required export certifications.

EMC has been chosen to form the Management Team of EMAF in order to utilize its experience in delivering business advice to private sector clients in establishing this facility. The EMC team markets the fund to prospective clients, including through provincial tours and one-on-one discussions with Cambodian businesses. In parallel, numerous qualified Business Development Service Providers are being identified to serve the needs of EMAF’s clients under its 50% matching grant scheme. Strategic partnerships with the complementary projects of other development partners are sought, with a view to achieving the best possible export results.

EMAF is funded by the World Bank and implemented by the Ministry of Commerce as part of the Trade Facilitation and Competitiveness Project and will eventually become an Exporter Technical Assistance Window within the Ministry of Commerce.

Business Metrics: Base Case

Unit Cost

After consultation with the designer and adjustment for inflation, we obtain a unit cost estimate of \$ 4.12 USD at launch date. We expect even lower unit costs as we are awaiting more competitive estimates from manufacturers who are eager to be a member of the scale-up consortium to reap the benefits of the network.

Manufacturing Costs

Factory costs (COGS)

Based on the estimated unit cost and projected sales volume, we calculate the factory costs. Labour cost, raw material, injection moulding press time, packaging, other overheads and profit margin for manufacturer are bundled in the factory costs.

Cost of mould (Depreciation)

Initial quotes by manufacturers for higher volume production runs lead to estimated costs around \$ 40,000 for moulds.

Transportation costs

As the central manufacturing is located in Ho Chi Minh City (HCMC), the transportation costs are calculated by estimating the average cost per trip from HCMC to various provinces and its districts. This is an area that will undergo significant further scrutiny due to its effect on distribution margins.

Storage costs

No further storage costs are incurred as production company's warehouse will be used for storage up to 25,000 units for free. Goods will be distributed to the districts on a monthly basis.

Trade margin

The “*HappyTap*” (brand name TBD) sales team receives a 20% commission as proportion of the total costs.

Retail Selling Price (RSP)

The sum of the unit product cost, margin for sales team and contingency margin result in the Retail Selling Price which we predict to be \$ 6.20 at launch date.

Revenue

The current business model aims to access approximately 40% of all addressable households within the first five years by allocating on average 8 sales agents to Vietnamese communes comprising of 1,500 households. In the base case projections, it predicts that an accumulated number of 2.2 M devices will be sold leading to a market coverage of 34% by the end of the fifth year. This will be scrutinized and tested in the months to come, especially the currently conservative estimate of sales volume per sales agent.

Business Metrics: Updated Case (10/2012)

The business model has been updated to include two distribution channels: direct and indirect. The direct model will include Sales Agents working with Women's Union promotional partners, and the indirect model will leverage existing distributors and their retailers. The test-marketing phase has been finalized with the agreement of the Women's Union in two provinces: *Tien Giang* and *Vinh Long*. Sales Agents and Retailers will focus on identified target segments within the two provinces, and we expect sales of roughly 80 units per sales agent per month. Agents will not be restricted by geographic territory; however, we understand that Vietnamese communities comprising roughly 1,500 households could likely sustain the expected monthly commission income to keep a sales agent incentivized.

Expected Sales Volume

With further input from Advisors and our new manufacturer partner (Duytan), we have made sales growth projections more conservative in this metrics update. Though less aggressive, we understand the current estimates to be more in line with an expansive strategy for new household consumer goods (i.e. adding territory every year). Further, the HappyTap remains a business line with strong potential for the bottom line.

Unit Cost

After gaining the commitment to cooperate from Vietnam's largest household plastics goods manufacturer, the project has obtained the more conservative estimate of average cost ex-factory of \$5.04 per unit, which includes manufacturer profit margin.

Cost of mould (Depreciation)

As the test-marketing phase is launched, moulds have firmed up at a slightly higher cost than originally expected. We also have included a new expense for moulds in the first year that can deliver higher quality product at lower unit cost.

Transportation costs

With provincial distribution centres now identified for the test-marketing phase, we have visibility for lower transportation costs to the hub locations from Ho Chi Minh City (HCMC). The key outstanding variable will be the average size of loads, and the costs from the distribution centres onwards. The latter can be offset through cooperation with the Women's Union and is included in the expense payment to WU.

Trade margin

The "*HappyTap*" (brand name TBD) value chain margins have undergone further review, resulting in the participation rates provided in the attached spreadsheet.

Retail Selling Price (RSP)

The sum of the value chain margins guides us to a minimum retail price of \$6.95, which further field research leads us to believe will be acceptable (consumers in Vietnam have become accustomed to double digit inflation). Please see attached field report from recent Vinh Long visit.

HAPPY TAP PROJECT PLAN





Importance of Handwashing

- ➔ Convenient and effective hand washing Device (HWD)
Effective preventative measure available to combat communicable diseases.
- ➔ Effective handwashing with soap in Vietnam would significantly reduce an estimated 900,000 cases of illnesses per year due to inadequate hygiene.
- ➔ A significant barrier against the spread of contagious infections



Executive Summary



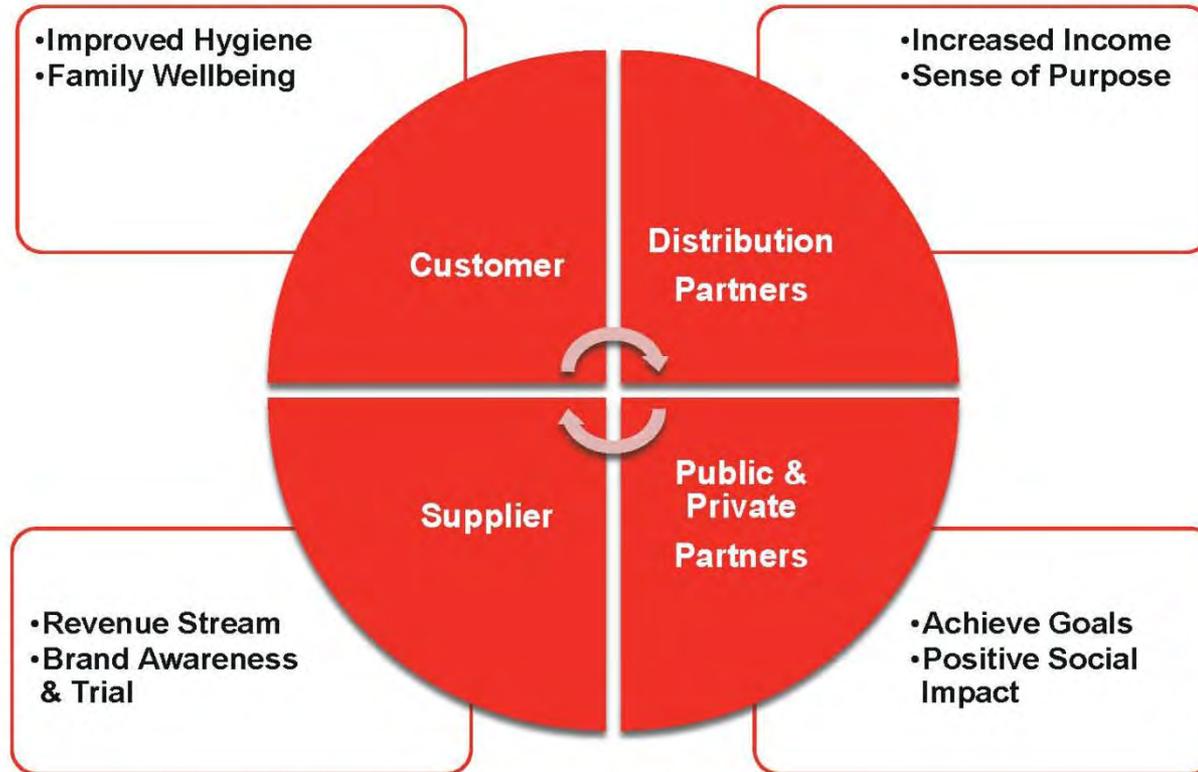
Public-Private Partnership

- ➔ A mutually beneficial partnership will give the device exposure to rural households through Women's Union and private distributors, and provides positive social and monetary value in return.
- ➔ The venture is expected to improve the living standards of Vietnam's rural communities, while providing a sustainable business model for the success of all partners



Executive Summary

HappyTap for all



A commercial model that addresses a serious social issue and benefits several stakeholders



Executive Summary



Key Objectives

- ➔ Demonstrate commercial potential of a device that enables good hygiene
- ➔ Refine ways to motivate rural household to prioritize the purchase and use of handwashing device with soap
- ➔ Create new means of income generation in rural areas



Objectives



Market for Handwashing

- ➔ 70% of Vietnam`s population are rural dwellers with a need for the handwashing device: Approx. 64 million people - 16 million households
- ➔ Domestic soap market is US\$39 million, growing 10% per year
- ➔ Potential for nationwide promotion through Women`s Union networks; distribution through Housewares Distributors



The Market & Mission



HappyTap Product Description

- Container may be used with / without stand
- Smooth round surfaces ease cleaning
- Wide “hands only” water spray
- Self-draining soap dish
- Soap dish in protected space
- ~15L moulded water container molded
- Opaque removable lid
- Shower tap built around common ball valve
- Wastewater catchment basin with drainage hole and hose connector



Product



Baseline Target Market Data

- 92 percent of rural mothers report rinsing hands at critical times
- 60 percent of those who rinsed their hands did not think soap was important or necessary
- #1 concern was ensuring that children met developmental milestones
- Many mothers report “soap was too expensive,” but most households had at least one type of soap on hand
- 80 percent of mothers interviewed watched television nightly and only 15 percent listened to the radio



Market Analysis



Market Opportunity

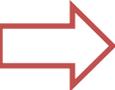
- ➔ In 2009 there were 22.6 M households (70 percent rural)
- ➔ Target segments exclude lowest poverty (income under \$1.25/person/day)
- ➔ Test-marketing and start up in Mekong Delta River Region (first Vinh Long & Tien Giang provinces)



Market Segmentation



HappyTap -The Ps



Price:

- Hypothesis is 150,000 VND per unit is acceptable
- Test-marketing will verify

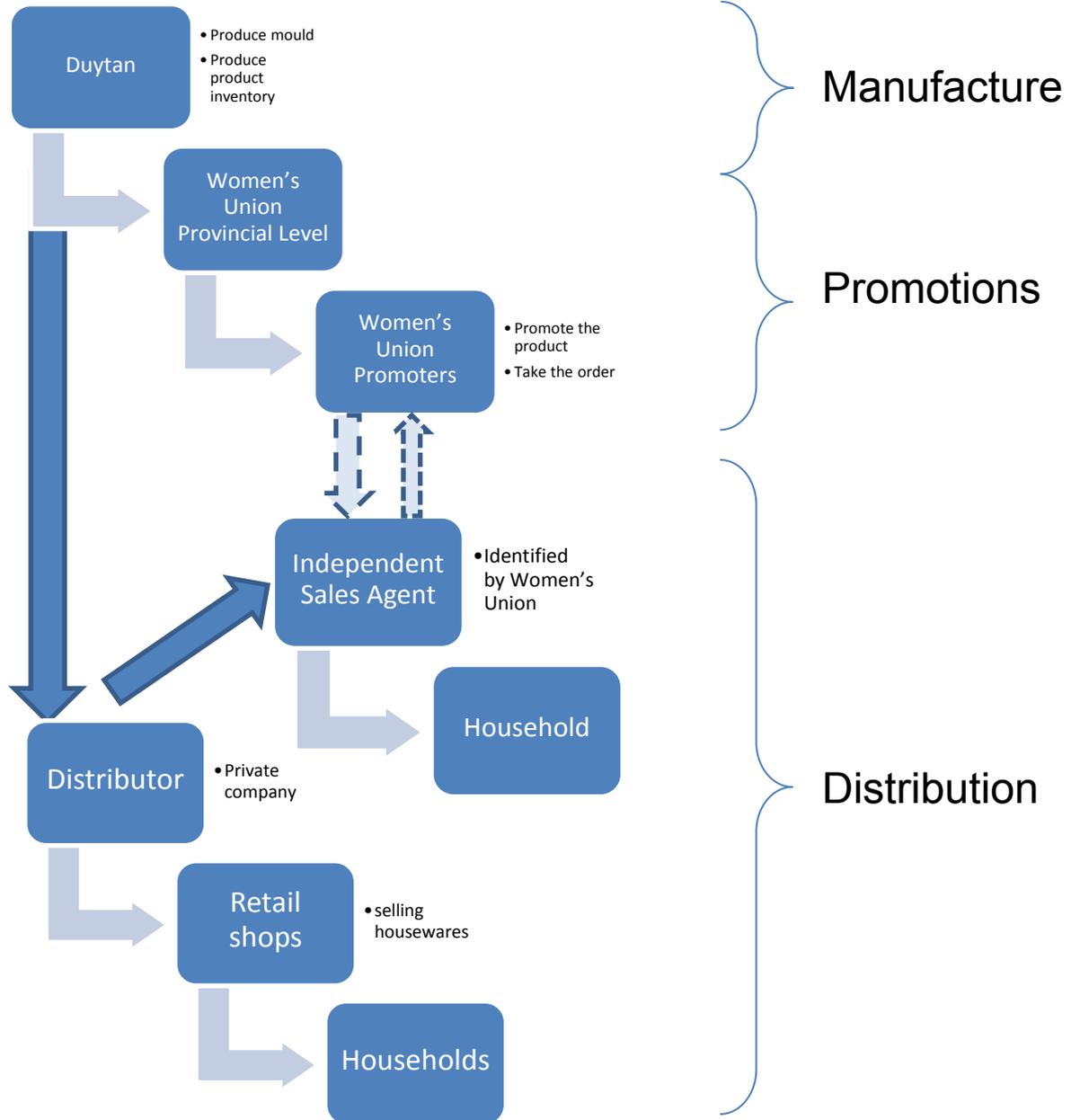


Place:

- Group meetings organized by Women's Union create atmosphere that supports buying decision, including peer pressure and trusted product advices
- Indirect sales through retailers will also be tested



Marketing Strategy



Distribution Channel



HappyTap -The Ps



Promotion:

- Primary role of Women's Union
- Network advantage and strong support
- Existing program through Unilever and MoH

- 
- Sales Agents will use tools including direct communication with households, village information boards, local voice announcement, and targeting of influential community members to spread the message



Marketing Strategy



HappyTap -The Ps



Policy:

- Support from MoH and VIHEMA programme
- UNICEF, CHOBA, and many others to encourage ownership
- Local government leadership will be cultivated
- Women's Union activities already cementing policy support



Marketing Strategy



HappyTap -The Ps

Partners:

- Important that every partner can be successful, most importantly the customer and private manufacturer / distributor
- Our partners include from Private Sector (manufactures, investors, FMCG, distributors, retailers, etc.) governmental (local people, Women's Union) to media and communities



Marketing Strategy

Value Proposition for key partners

	Outcome	Contribution
<i>Manufacturer (Duytan)</i>	<ul style="list-style-type: none">• Profit from new product (first mover's advantage)• Achieve Branding awareness• Social responsibility• Global demand opportunities	<ul style="list-style-type: none">• Start-up funding• Project ownership• Design contribution• Supply chain management
<i>Unilever</i>	<ul style="list-style-type: none">• Branding• Increase soap sales• Increase market share• Meaningful CSR initiative	<ul style="list-style-type: none">• Start-up funding• Product donation for co-branding promotion• Sales training• Market intelligence



Key partners

Value Proposition for key partners

	Outcome	Contribution
<i>Women's Union</i>	<ul style="list-style-type: none">• Improve hand hygiene and decrease incidence of disease• Increase members' income• Pilot for self-funded initiative	<ul style="list-style-type: none">• Create the demand for HWD• Refer sales opportunities
<i>Sales Agents</i>	<ul style="list-style-type: none">• Increase income• Successful business	<ul style="list-style-type: none">• Effort and dedication• Local expertise and village / commune knowledge
<i>Water & Sanitation Program</i>	<ul style="list-style-type: none">• Achieve "Handwashing Initiative" objectives	<ul style="list-style-type: none">• Promotion and Awareness• Support relationship with Ministry of Health



Key partners



Sales Strategy

Promotion

Women
Union

Group
Meetings

Households

Sales

Distributors

Agents

Households

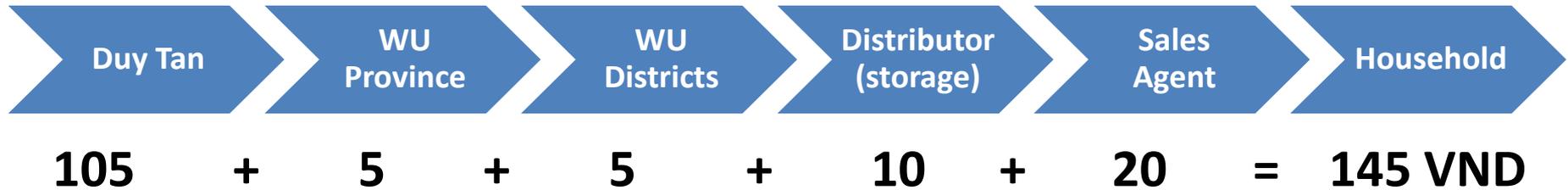
Sales commission will leverage Sales Agents, and expense reimbursement for Women's Union, will ensure they spend their effort to gain our targets



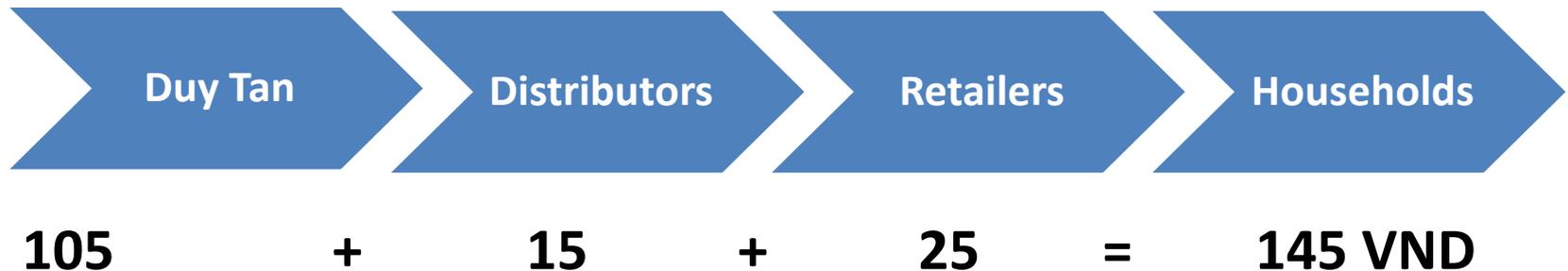
Sales Strategy



Margins in Market #1 (Direct & Indirect Channels)



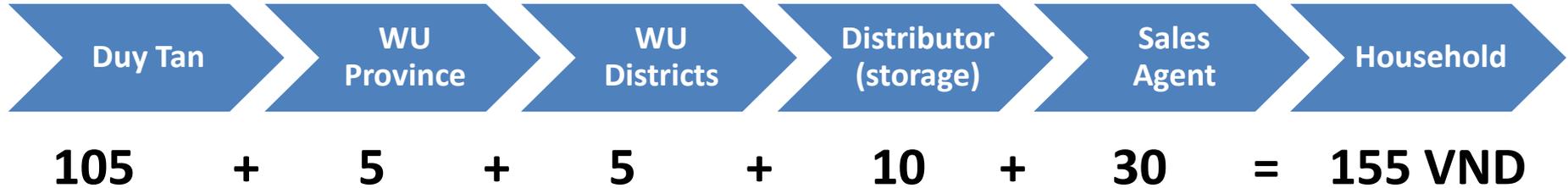
(Estimated: 1 Sale Agent sell 80 units/month = 1.6 Million VND)



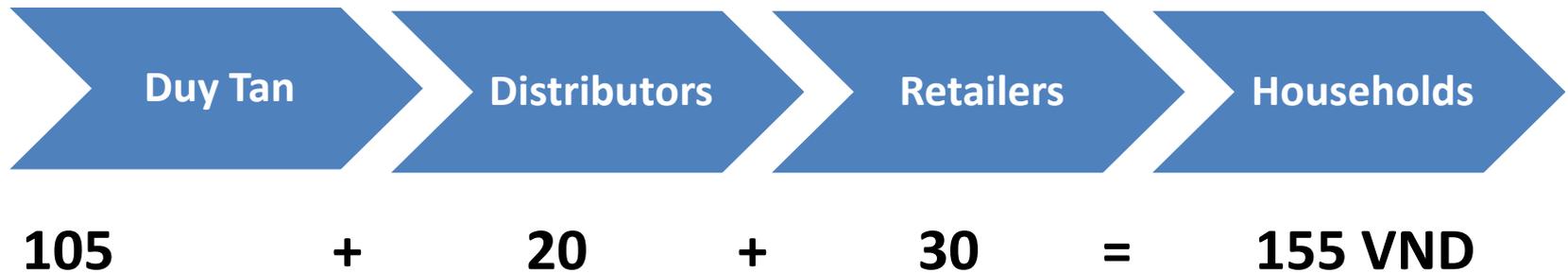
Sales Strategy



Margins in Market #2 (Direct & Indirect Channels)



(Estimated: 1 Sale Agent sell 80 units/month =1.6 Million VND)

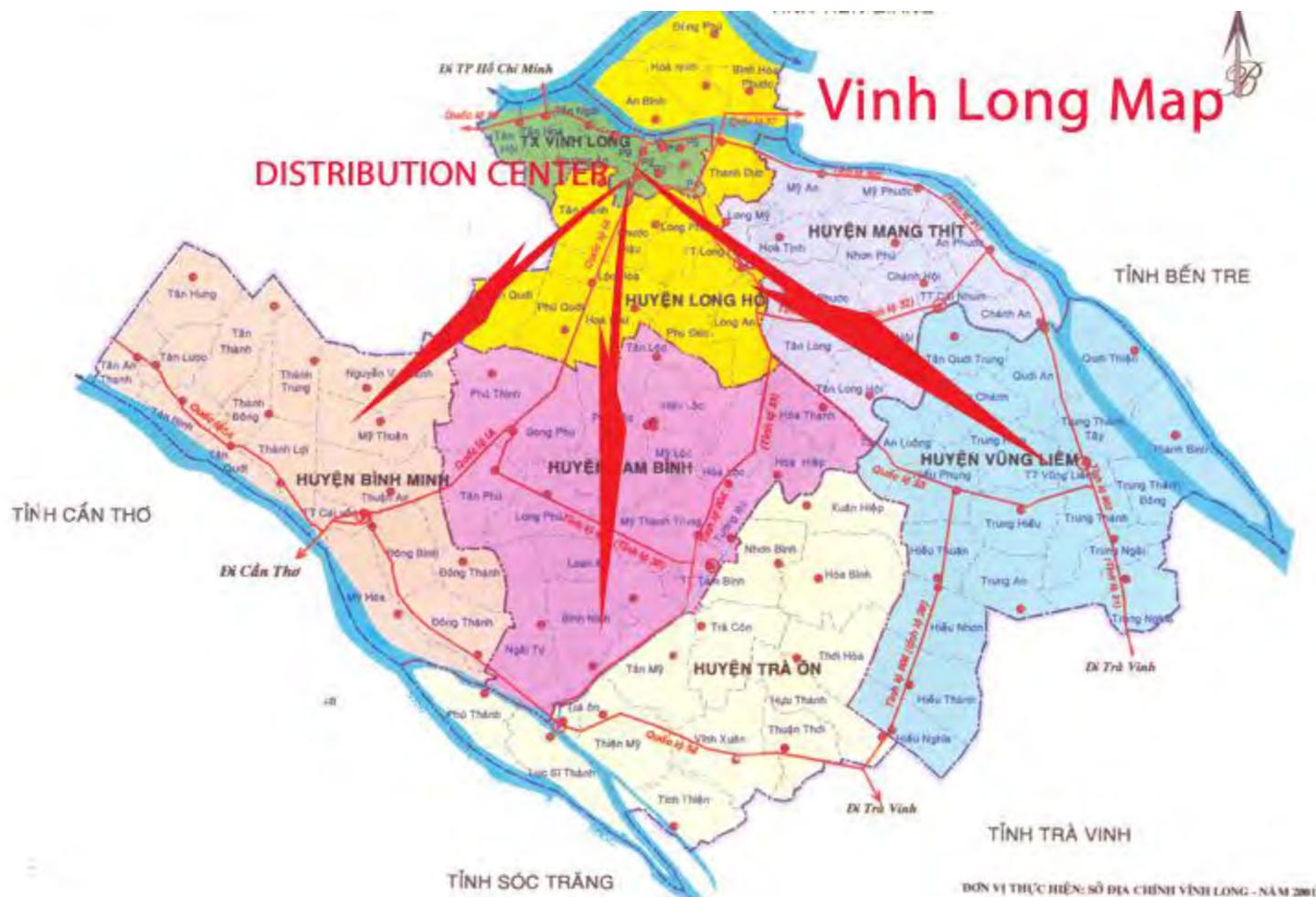


Sales Strategy

Aspects	Vinh Long Province	Tien Giang Province
Area	1.475,2 km ²	2.481,8 km ²
Population(person)	1.069.000 (2008)	1.682.601 (2011)
GDP person/Year	\$1.300 (2011)	\$1.000 (2010)
Administrative Units	08 Districts (107 Villages) 2008	10 Districts (172 Villages)
Citizen Population	35%	14,7%
Rural Population	65% (2008)	85,3%
WU members	144.000 (2010)	
Economic Structure	Agriculture, Forest, Sea Food 48%; Industry and Construction 34%; Services 18% (Expected 2012)	2010 Agriculture, Forest, Sea Food 47,2%; Industry and Construction 27,1%; Services 25,7%
Access to hygienic toilets in Rural household		48,35% (2010)
Rural Household income <i>Monthly income per capita for people working in Agriculture, Forestry and Fishery</i>	357.200 VND/person/month (2010)	396.300 VND/ person/month (2010)



Test-Market Areas

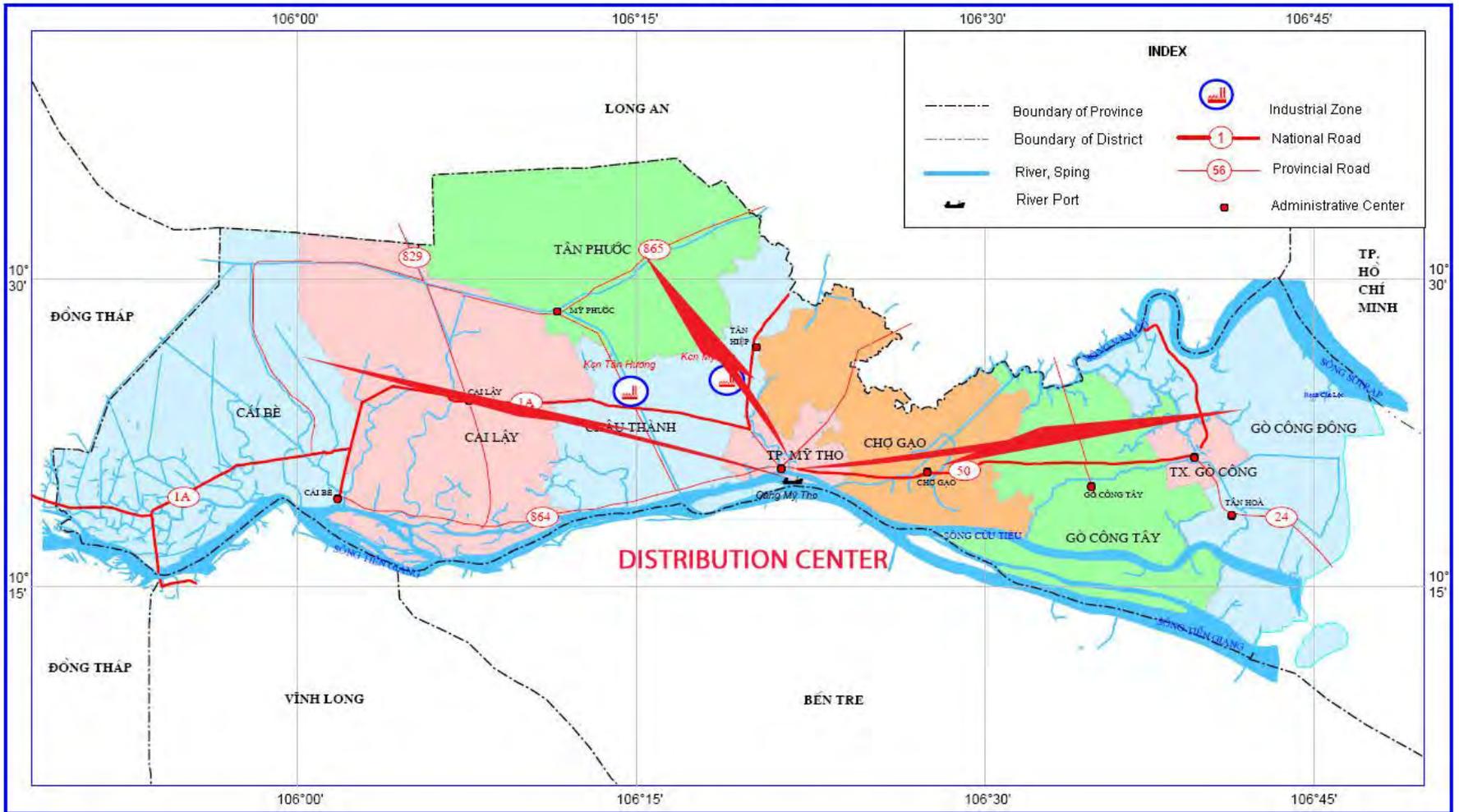


Vinh Long Province has 08 Districts (107 Villages): Long Ho (15 Villages); Bình Minh (11 Villages); Vũng Liêm (20 Villages); Tam Bình (17 Villages); Bình Tân (6 Villages); Mang Thít (13 Villages); Trà Ôn (14 Villages); Vinh Long City (11 Wards + Villages)



Sales Pattern

TIEN GIANG MAP



Tien Giang Province has 10 Districts: Chợ Gạo (17 Villages); Mỹ Tho (15 Villages); Cai Lậy(28 Villages); Gò Công Đông (13 Villages); Gò Công Tây (13 Villages); Tân Phú Đông (06 Villages); Tân phước (12Villages); Gò Công (12 Villages); Cái Bè(25 Villages); Châu Thành (24 Villages)



Sales Pattern



Vinh Long & Tien Giang

Segment 1: Citizen Households

Citizen Population	35% (Vinh Long)	14,7% (Tien Giang)
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Segment 2: Rural Households

Rural Population	65% (2008) (Vinh Long)	85,3% (Tien Giang)
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Households with income above \$1.25 per/day

Segment 3: Health Center, Pre Schools, Primary Schools



Market Segment



Project team

GEOFF REVELL: Project Manager (MBA) -10 years

DUONG DANG NGOC (MBA) : Business & Marketing Lead -06 years

HUYNH NHU AI : Operation Lead (BA)

Board of Advisors: Experts from MoH, WU, WSP, FMCG, Manufacturer, and EMC.



Management Team



Thanks for attention!

USAID DIV Milestone Report #4

WaterSHED *HappyTap* – Handwashing Device Commercialization Project (Vietnam)

23-January-2013

Milestone Report #4 - Overview:

- Shortlist of potential private partners for stage 2
- Draft structure of social venture
- Update to business and target market metrics listed in milestones 2 and 3

A. Shortlist of potential private partners for stage 2

WaterSHED is playing a non-central role in the private-sector led commercial roll-out of the HappyTap handwashing product. During DIV stage 1, WaterSHED has identified manufacturer and distributor partners and is demonstrating the market opportunity for the product with targeted test-marketing in two pilot provinces in South Vietnam (Tien Giang and Vinh Long). The team has built a consortium of public and private partners including the Women’s Union, the Ministry of Health, Unilever, and others, whose objectives and incentives are aligned to maximize product uptake. Please see table below for the shortlist of private partners that represent potential sources of investment during the expansion stage following DIV stage 1.

Shortlist of Potential Private Partners:

Category	Name	Brief description	Participation in <i>HappyTap</i> Commercialization
<p>Plastics enterprise: Plastic enterprise is a key factor that decides important issues around HappyTap product: quality, distribution and logistics.</p>	Dai Dong Tien plastics Corp.	<ul style="list-style-type: none"> - One of national leading plastic enterprise in Vietnam - Having distribution channel in 64 provinces of Vietnam. - Leading plastic enterprise that has regular charity activities. -Have branch in Phnom Penh. 	<ul style="list-style-type: none"> - Can recommend its distributors all around the country to be a link of HappyTap’s distribution channel. - Dai Dong Tien brand name is the second most popular plastic brand name that local people in Vinh Long and Tien Giang can immediately recall (the first one is DuyTan). - Dai Dong Tien’s method of commission: it gives very little commission to distributor but very high commission to retailers. It seeks local retailers and wants to keep direct contact from retailer with its company. It is why MyKy company does not work with Dai Dong Tien for years. It could be a good chance for HappyTap to learn lessons with its retailers. - Difference from DuyTan: DuyTan has provincial distributors. It based on previous sales volume to allow distributors different level of loan/deposit and offer various stages of incentives. However, DuyTan does not control retail price, it does not control distribution channel to consumer at all. Distributors have their own distribution channel in the region and feel free to decide commission at each link of the distribution channel. DuyTan just doesn’t involve.
	DuyTan plastic corp.	<ul style="list-style-type: none"> - One of national leading plastic enterprise in Vietnam. - Achieved High Quality Vietnam Product Certificate 15 times every year since this the certificate was born in 1997. - Achieved “Golden Supplier 2010” certificate rewarded by Unilever - Unilever is it’s #1 client 	<ul style="list-style-type: none"> - Can recommend its distributors all around the country to be a link of HappyTap’s distribution channel. - HappyTap can receive a very competitive delivery cost because DuyTan has lorry system to deliver their goods to provinces of South Vietnam once or twice a week. - Our research result shows that underprivileged people are highly aware of DuyTan brand name as high quality plastic producer. It can help the project in getting approach to local market.
	Tashing Corp.	<ul style="list-style-type: none"> - A plastic housewares enterprise working in more than 20 years on the field. - Have rich experience in working with NGO. - Is a family run business so it is flexible in making decision with 	<ul style="list-style-type: none"> - Have strong interest in working with WaterSHED as it used to cooperate with us before. - The strongest partners of Tashing now are big supermarket chains such as: Coop Mart, Lotte Mart and Metro. Cooperating with HappyTap project, Tashing can have very high interest in expanding in depth its market to rural regions whose market remain very potential for Tashing.

		<p>partners.</p> <ul style="list-style-type: none"> - Managing partner has strong commitment to the HappyTap project, and earned MBA in Australia
<p>Distributor: all regions have distributors at provincial level. However, to ensure strength of distributors in same level, the project expects to have such professional distributor like MyKy to support when needed.</p>	<p>MyKy Service and trading Co.</p>	<ul style="list-style-type: none"> - A well-known company based in HCMC focuses on distributing plastic, inox and ceramic products. - Haven't had distribution channel yet in the south of Vietnam but the provinces in central and north of Vietnam. <ul style="list-style-type: none"> - In the case of expansion in stage 2 beyond south Vietnam, MyKy can bring its experience in working at provinces of central and north of Vietnam (whose distribution channel is much worse that need such company like Myky to involve to distribute products)
<p>FMCG company: even though HappyTap is not an Fast Moving Consumer Good, WaterSHED and FMCG enterprise share a common interest in improving living standard of community in which hygienic knowledge and behavior is inevitably a main aspect.</p>	<p>Unilever Vietnam; and [Procter & Gamble Vietnam]</p>	<ul style="list-style-type: none"> - An international FMCG corporation that gains largest proportion of the consumer in domestic market. -Have strong commitment in community development in which HWWS is among their top priority. -Already did some HWWS projects in integration with Ministry of Health. <ul style="list-style-type: none"> - Unilever brings their experience in developing promotional messages as well as marketing experience in such educational campaign they did before. - Unilever has spent 10,000,000,000 VND (~500,000 USD) per year on the "Handwashing with Soap for Healthier Vietnam" project since 2007. The first phase of the project (2007-2011) was implemented in 80 communes of 16 provinces and now following up with second phase (2012-2016) to cover 12 more provinces. - Branded 'Unilever' versions of HappyTaps will be provided by Unilever in schools and health centers.
<p>Private-Sector Focused NGOs and Organizations</p>		
<p>Other NGOs: sharing same passion in improving community, other NGOs and HappyTap project should be integrated in order to share mutual strength for maximize probability of solving relating concerns.</p>	<p>CSIP</p>	<ul style="list-style-type: none"> - A Vietnamese NGO focused on supporting social enterprise whose has outstanding innovation for social change. Its support includes: <ul style="list-style-type: none"> + Seeking social enterprise in beginning stage and soaring stage. + Provide support package includes: <ul style="list-style-type: none"> (i) 7,000USD for social enterprise in beginning stage and 30,000USD for social enterprise in soaring stage. (ii) Recommend social enterprise to related partners, government and community. (iii) Establish operations and business ability. <ul style="list-style-type: none"> -CSIP can consult how to operate HappyTap project as a social enterprise. - Connect HappyTap project to related partners, government and community. This is especially helpful in stage 2 - scaling up phase where recommendation to various provinces is needed.

<p>World Bank</p>	<ul style="list-style-type: none"> - The Water and Sanitation Program (WSP) is a multi-donor partnership administered by the World Bank to support poor people in obtaining affordable, safe and sustainable access to water and sanitation services. - In 2006-2010, WSP Vietnam has “The Global Scaling Up Handwashing Project” that approached 2.2 million women (15-49 years old) and children (06-10 years old) through direct promotion. 	<ul style="list-style-type: none"> - WSP Vietnam has recommended HappyTap project to main partner in “The Global Scaling Up Handwashing Project” that is Women’s Union of Tien Giang province. - WSP Vietnam has shared their methodology, research result for HappyTap project since first days. - Thanks to its project in 2006-2010, underprivileged people in Tien Giang have good awareness of HWWS, at the same time, Women’s Union of this province is professional in promoting HWWS. The knowledgeable audience and well-qualified promotion staff that WSP left after its project are firm foundation for HappyTap project’s success in stage 2. - WSP continues to observe and consult HappyTap by their rich experience in the HWWS field.
<p>CHOBA</p>	<ul style="list-style-type: none"> - The <u>CHOBA</u> (Community Hygiene Output-Based Aid) project was founded by the Women's Union (WU), East Meets West Foundation (EMWF), and the MoH for implementation from 2012 to 2015. 	<ul style="list-style-type: none"> - Nearly 125,000 low income households will receive rebates for purchasing / building toilets and <u>handwashing facilities</u> with soap and water. - WaterSHED / USAID were early partners and investors in pilot for CHOBA, and EMWF is keen to have affordable products on the market to help them achieve a successful outcome (at least 1 handwashing station near the toilet).

B. Draft Structure of Social Venture

During DIV stage 1, the WaterSHED project team has identified two final options for the structure of the social venture that will lead the expansion beyond the proof-of-concept.

Model 1: Establish *HappyTap Co. Ltd*, a Social Enterprise registered in Vietnam.

In this proposed structure, HappyTap Co. is a profit-seeking limited company with shareholders, staff, and intellectual property assets (e.g. HappyTap designs). It would be operate as a social enterprise using commercial strategies to achieve a social purpose of providing a convenient and effective handwashing device for households. As a normal enterprise in the market, HappyTap Co.'s focus of activities would be to maximize sales volume and market penetration while ensuring that customers were satisfied with (i.e. consistently used) affordable, durable, and attractive handwashing products.

Revenue Model:

1. Licensing fees from HappyTap product manufacturers ~8% of retail price (primary)
2. Sales and marketing support (optional)

Proposed Ownership & Debt-Equity Structure:

As a business primarily focused on achieving a profit while delivering a social good, HappyTap Co. Ltd. would be owned by its shareholders – a mix of private investors, including individuals and social impact venture funds. The debt share of the capital structure would be minimal as the assets of HappyTap Co. will also be small. As a result, the balance sheet of HappyTap Co. will be similar to a consulting organization: largest assets will be intangible such as intellectual property on product design, brand, marketing tools, training program, etc.

Company Value Proposition (overview):

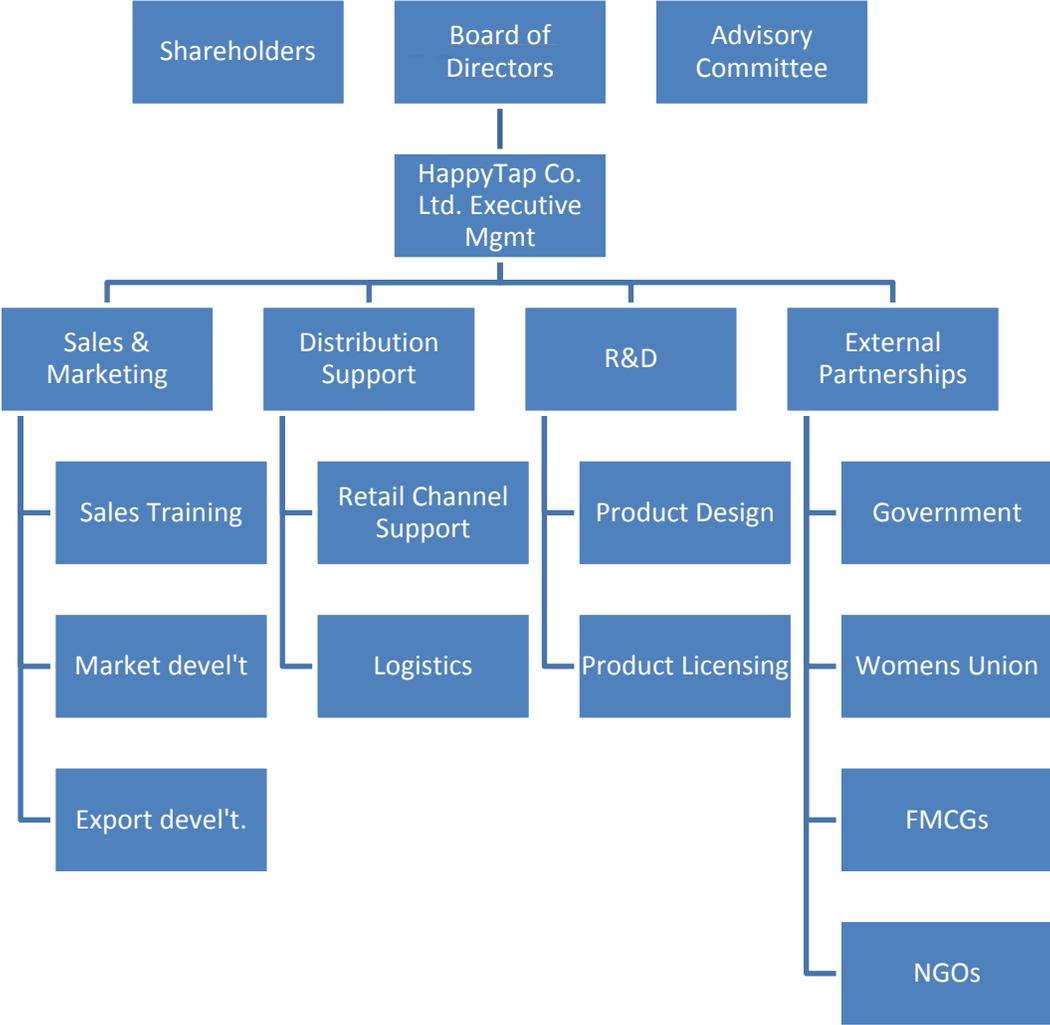
The corporation will primarily be responsible for HappyTap product management, will own and improve the product design and potentially working with manufacturer partners to create premium-end, low-end, and large-format variants (e.g. larger formats for schools). It will develop and coordinate the marketing activities of the many public-sector partners of the project, profiting on the licensing revenue for every HappyTap product sold.

In the initial stages, the most important role of HappyTap Co. will be to build the sales agents and WU-based promotion network to launch HappyTap product in South Vietnam, while at the same time building a foundation for Central and North Vietnam expansion through indirect channels.

HappyTap Co. Value-Add

Plastic Manufacturers	•HappyTap Co. licenses product design to manufacturers and supports ongoing product refinement and improvements; primary revenue source for HappyTap Co.
Women's Union Promoters	•HappyTap Co. staff provides liaison services between national and provincial level Women's Union; develops improved marketing and promotional campaign tools, and trains WU members.
Own distributors, 3rd-party distributors	•HappyTap Co. recruits new distributors and connects and coordinates them with retail and market opportunities
Sales Agents	•During stage 2 expansion, HappyTap Co. staff recruit independent sales agents; train SAs and connect them with WU promoters
Retailers	•HappyTap Co. indirect sales support team will expand the retail network and improve store sales; retail development workshops to learn about point-of-sale marketing tools, in-store sales tactics such as discounting, display, promotions, etc.
Clients	•HappyTap Co. will be the main point of convergence for market data used to generate customer-driven improvements in product design, marketing campaigns, etc. -- business equivalent of 'monitoring' : gathering market intelligence for sustainable growth
Other Partners	•HappyTap will coordinate among government agencies, public partners (e.g. UNICEF, World Bank), corporate allies (e.g. FMCGs), and foreign buyers in order to build long-term (stage 3) expansion opportunities

The operational structure of HappyTap Co. would be as follows:



As a social enterprise capitalized by impact investors expected to have longer-term investment horizons (e.g. ~7 years), HappyTap Co. would conduct strategic business planning with a view to a similar timeframe. This approach would be fundamentally different from the usual “project” planning approach associated with grant funding in voluntary and community organizations.

Direct Sales Channel

The company would be responsible for building a direct sales channel whereby each sales agent would serve 2 communes (and each commune has 1 women Union leader); in which group sales meetings (coordinated by Women’s Union) would be organized locally twice per week. The meetings would be consecutive such that the first meeting will introduce the HappyTap product and collect orders with deposits from potential clients. The second meeting will invite buyers from the first meeting to collect their product, in view of new potential households attending the group meeting. The Sales Agent and Women’s Union both play very important roles on this model so they need to be trained carefully.



Medium-Term Growth

Following stage 2 expansion and the establishment of HappyTap Co., the product would be managed directly without donor-funding. However, HappyTap Co. would seek to leverage relevant NGO- and government-sponsored initiatives, such as behavior change campaigns.

In long term, HappyTap is expected to run sustainably without the involvement of sales agents. In other words, HappyTap Co. is to run in the market as other plastic products. However, WU is expected to maintain promotional support and HappyTap Co. to provide assistance to WU to conduct this work.

Model 2: WaterSHED as Business Development Service Provider and Market Facilitator

This model will be without the establishment of a new dedicated social enterprise for the HappyTap product. Rather, it is based on the concept of the existing businesses in the consumer plastic goods sector taking on the major roles of production, distribution, and sales. In this model, WaterSHED in Vietnam plays the role of a market *Facilitator* or *Market-Maker*, fulfilling many of the duties above of the HappyTap Co. in the short-run.

In long-term plan for this model (similar to model 1), the HappyTap product is expected to be produced and sold sustainably without the involvement of dedicated sales agent. In other words, HappyTap is sold in the market as any other plastic products. However, WU maintains promotional support with assistance from WaterSHED.

In model 2, a key difference is that the handwashing device is not branded as “HappyTap”, but rather the product is branded as a product of the plastics manufacturer. Or similarly, the “HappyTap” brand belongs to a plastic manufacturer as one of their many product brands. WaterSHED supports the marketing campaign development, training WU members and sales agents, and collecting feedback and monitoring data from customers.

Model 2: WaterSHED’s Support in Near Tear of Handwashing Device Sector



C. Update to Business and Target Market Metrics

I) Business Metrics

1. Value Chain Participation (per Handwashing Unit, @ sales price 149,000 VND = 7.15 USD)

Direct Channel

Projected Gross Margins (as % of sales)	Year 1	Year 2	Year 3	Year 4	Year 5
COGS	51%	47%	42%	41%	40%
Manufacturer margin	17%	21%	26%	26%	27%
WU expenses	8%	8%	8%	8%	8%
Distributor	8%	8%	8%	8%	8%
Sales agent	16%	16%	16%	15%	15%

Indirect Channel

Projected Gross Margins (as % of sales)	Year 1	Year 2	Year 3	Year 4	Year 5
COGS	51%	47%	42%	41%	40%
manufacturer margin (%)	17%	31%	38%	39%	40%
retailer margin (%)	20%	20%	19%	19%	19%
distributor margin (%)	12%	12%	12%	11%	11%

2. Projected Operating and Capital Expenses

USD	Year 1	Year 2	Year 3	Year 4	Year 5
Operating Expenses					
Unit volume	53,088	139,852	223,636	244,240	270,980
Production cost (millions VND)	3,401	8,299	12,223	13,253	14,590
Production cost (USD)	163,133	398,079	586,257	635,667	699,792
Marketing					
promotional leaflet with instructions	5,309	13,985	22,364	24,424	27,098
promotional soap (\$0.30 per bar)	15,926	41,956	67,091	73,272	81,294
national campaign		15,000	15,000	15,000	15,000
schools WASH campaign	25,000	25,000	25,000	25,000	25,000
Marketing subtotal	46,235	95,940	129,454	137,696	148,392
Transportation to Prov. Centre					
Share of deliveries to south	85%	80%	65%	60%	60%
South (\$0.44 per unit)	19,855	49,228	63,960	64,479	71,539
Central & North (\$0.62 per unit)	4,937	17,342	48,529	60,572	67,203
Transportation subtotal	24,792	66,570	112,489	125,051	138,742
Capital Expenditure					
Mold	70,000	0	0	0	0
Depreciation expense (6 years life)	11,667	11,667	11,667	11,667	11,667

3. Five Year Pro-Forma Income Statement

<i>USD</i>	Year 1	Year 2	Year 3	Year 4	Year 5
Sales					
Direct sales	277,986	680,939	956,122	877,983	786,518
Indirect sales	22,302	73,459	263,568	433,525	680,501
Export sales	17,986	97,458	163,957	223,046	261,535
Total sales revenue	318,273	851,856	1,383,647	1,534,553	1,728,553
Cost of Goods Sold	163,133	398,079	586,257	635,667	699,792
Gross Margin	155,140	453,777	797,390	898,886	1,028,761
Marketing expenses	46,235	95,941	129,454	137,696	148,392
Transportation expenses	24,792	66,570	112,489	125,051	138,742
Distributor margin	26,699	68,078	125,197	149,755	187,050
Retailer margin	2,158	7,554	15,108	28,777	37,986
Sales agent margin	44,478	107,235	148,236	134,043	118,273
WU promoter expenses	22,239	53,617	74,118	67,022	59,137
Training costs	20,000	35,000	20,000	5,000	5,000
General and Administrative	1,500	1,500	1,500	1,500	1,500
Operating Expenses	188,101	435,494	626,102	648,844	696,080
EBITDA (operating revenue)	(32,962)	18,284	171,287	250,042	332,682
In-kind partner contribution	60,926	116,956	127,091	118,272	126,294
D&A	(11,667)	(11,667)	(11,667)	(11,667)	(11,667)
EBIT	16,298	123,572	286,712	356,647	447,309
Interest					
Net Income	16,298	123,572	286,712	356,647	447,309
(% of turnover)	5.12%	14.51%	20.72%	23.24%	25.88%

The above business metrics are presented as ‘vertically integrated’ across the value chain actors. While either HappyTap Co. or the manufacturer would be the lead enterprise, either firm cannot succeed unless its distributors, retailers, sales agents, and promoters are incentivized, motivated, and enabled to do their part. For that reason, the pro-forma income statement and other components shown are based on the end-to-end value chain.

The income statement presents the perspective of the manufacturer, modified so that top-line revenue is based on retail rather than wholesale sales, and so that value chain margins are internalized. WaterSHED believes that it presents a reasonable assessment of the expected revenues and expenses in the HappyTap value chain; however, each of the major actors would have separate profit and loss statements, and their margins and turnovers would depend on several variables, such as the ratio of sale between direct and indirect channels.

4. NPV Analysis

(USD)	Year 1	Year 2	Year 3	Year 4	Year 5
Net Income (excluding deprec.)	27,965	135,239	298,378	368,314	458,976
Discount rate	1.1				
NPV	25,423	111,768	224,176	251,563	284,988
Cumulative NPV (4 years)	612,930				
Less CapEx	70,000				
NPV	542,930				

Note: there was an error in the NPV calculation provided in milestone report #3 (23-Oct-2012). The 4 year cumulative NPV, less capital expenditure, should have read: \$677,625 based on the assumptions and data at that time.

II) Target Market Metrics

As result of test-marketing activities that began during the last period (23-October-2012 to 23-January-2012), the WaterSHED project team is able to present additional target market data from the two initial target market provinces.

<i>Willing to buy handwashing device product</i>	Yes	82%	<i>Intent to buy</i>	<3m	49%
<i>Willing to buy the HappyTap</i>	Yes	79%		3-6m	30%
<i>Preferred place to buy</i>	Group mtg	66%		>6m	21%
	Sales Agent	12%	<i>Recommend HappyTap to friend</i>	Yes	92%
	Market	12%	<i>More frequent hand washing with HappyTap</i>	Yes	95%
	Shop	10%			
<i>Exposed to Hygiene education / promotion</i>	Yes	84%	<i>Aware of other device options</i>	No	74%
<i>Water Source</i>	Piped house	46%	<i>Cost Estimate</i>	<100K VND	30%
	Surface (river)	20%		100K VND	34%
	Public tap	12%		150K VND	17%
	Rain	12%		>175K VND	12%
	Well	9%			
<i>Device distance to Kitchen</i>	<5m	71%	<i>Device distance to Toilet</i>	<5m	65%
	5-10m	24%		5-10m	21%
	>5m	4%		>5m	13%

USAID DIV Milestone Report #5

WaterSHED *HappyTap* – Handwashing Device Commercialization Project (Vietnam)

23-April-2013

Milestone Report #5 - Overview:

- End-line business metrics
- End-line target market metrics: 1) summary results of sales message testing, 2) summary of product and brand aesthetic preferences
- HappyTap DIV [stage 1 video](#) (for USAID, draft only)

A. End-line business and Target Market Metrics

I) Business Metrics

1. Value Chain Participation (per Handwashing Unit, @ sales price 149,000 VND = 7.15 USD in Year 1)

The team updated the value chain participation model based on an increase in the cost of goods sold (product manufacturing costs). Specifically, WaterSHED determined that the plastic material of the HappyTap must be enhanced with a UV treatment to make it resistant to sunlight over the long term. Otherwise, a HappyTap exposed to the sun will become brittle and easily breakable. The increase in cost affects the margin of the enterprise.

Please note, the tables below have also been renamed to reflect that they represent participation in the overall supply chain, not margins of individual actors. As an example, in the revised Direct Channel table, the manufacturer participation as a percent of retail sales is 11 percent in year 1, but the manufacturer's margin is roughly 20 percent, calculated as the ex-factory price, less production cost, divided by the production cost.

Direct Channel (23-January-2013)

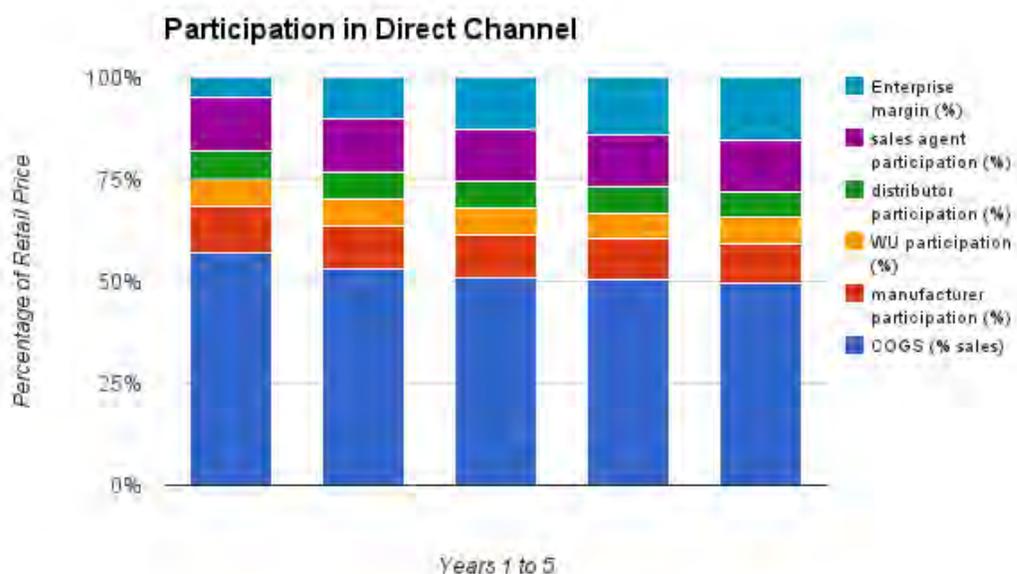
Projected Participation (as % of sales)	Year 1	Year 2	Year 3	Year 4	Year 5
COGS	51%	47%	42%	41%	40%
Manufacturer particip	17%	21%	26%	26%	27%
WU expenses	8%	8%	8%	8%	8%

Distributor	8%	8%	8%	8%	8%
Sales agent	16%	16%	16%	15%	15%

Direct Channel (23-April-2013)

Projected Participation (as % of sales)	Year 1	Year 2	Year 3	Year 4	Year 5
COGS*	57	53	51	50	49
Manufacturer particip.	11	11	10	10	10
WU expenses	7	7	7	6	6
Distributor	7	7	7	6	6
Sales agent	13	13	13	13	13
HappyTap Enterprise	5	10	13	14	15

* increase reflects new UV treatment for product durability



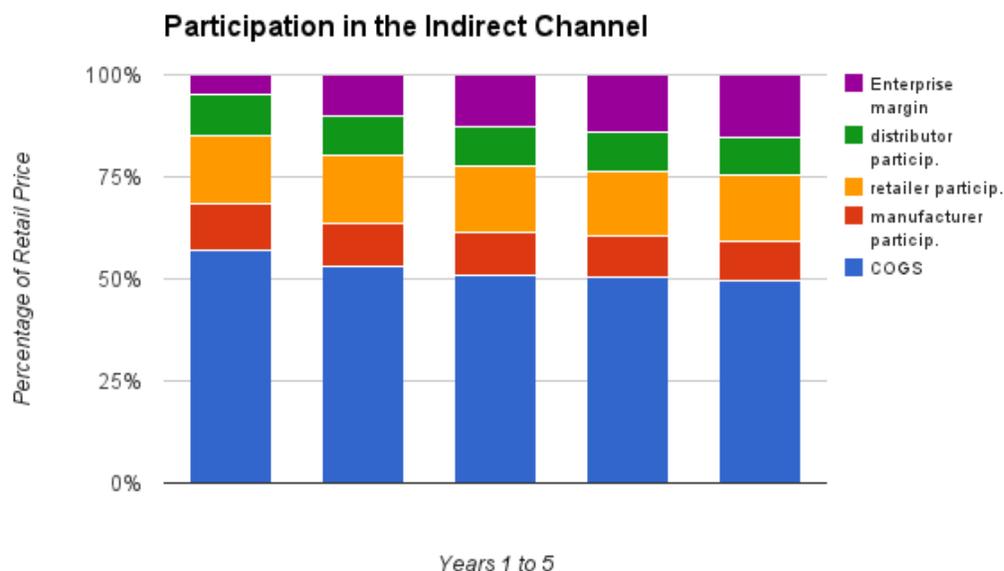
Indirect Channel (23-January-2013)

Projected Participation (as % of sales)	Year 1	Year 2	Year 3	Year 4	Year 5
COGS	51%	47%	42%	41%	40%
manufacturer margin (%)	17%	31%	38%	39%	40%
retailer margin (%)	20%	20%	19%	19%	19%
distributor margin (%)	12%	12%	12%	11%	11%

Indirect Channel (23-April-2013)

Projected Participation (as % of sales)	Year 1	Year 2	Year 3	Year 4	Year 5
COGS	57	53	51	50	49

manufacturer particip.	11	11	10	10	10
retailer particip.	17	17	16	16	16
distributor particip.	10	10	10	10	10
Enterprise margin	5	10	13	14	15



2. Projected Operating and Capital Expenses

USD	Year 1	Year 2	Year 3	Year 4	Year 5
Operating Expenses					
Unit volume	53,088	139,852	223,636	244,240	270,980
Production cost (USD)	216,179	537,038	838,419	912,534	1,008,721
Marketing					
promotional leaflet with instructions	5,309	13,985	22,364	24,424	27,098
promotional soap (\$0.30 per bar)	15,926	41,956	67,091	73,272	81,294
national campaign		15,000	15,000	15,000	15,000
schools WASH campaign	25,000	25,000	25,000	25,000	25,000
Marketing subtotal	46,235	95,940	129,454	137,696	148,392
Transportation to Prov. Centre					
Share of deliveries to south	85%	80%	65%	60%	60%
South (\$0.44 per unit)	19,855	49,228	63,960	64,479	71,539
Central & North (\$0.62 per unit)	4,937	17,342	48,529	60,572	67,203
Transportation subtotal	24,792	66,570	112,489	125,051	138,742
Capital Expenditure					
Mold	70,000	0	0	0	0

Depreciation expense (6 years life)	11,667	11,667	11,667	11,667	11,667
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3. Five Year Pro-Forma Income Statement

<i>USD</i>	Year 1	Year 2	Year 3	Year 4	Year 5
Sales					
Direct sales	331,359	809,621	1,134,005	1,038,835	928,446
Indirect sales	26,584	87,341	312,604	512,950	803,298
Export sales	21,439	115,875	194,460	263,909	308,729
Total sales revenue	379,382	1,012,837	1,641,070	1,815,693	2,040,473
Cost of Goods Sold	216,179	537,038	838,419	912,534	1,008,721
Gross Margin	163,203	475,799	802,651	903,159	1,031,752
Marketing expenses	46,235	95,941	129,454	137,696	148,392
Transportation expenses	24,792	66,570	112,489	125,051	138,742
Distributor margin	26,699	68,078	125,197	149,755	187,050
Retailer margin	2,158	7,554	15,108	28,777	37,986
Sales agent margin	44,478	107,235	148,236	134,043	118,273
WU promoter expenses	22,239	53,617	74,118	67,022	59,137
Training costs	20,000	35,000	20,000	5,000	5,000
General and Administrative	1,500	1,500	1,500	1,500	1,500
Operating Expenses	188,101	435,494	626,102	648,844	696,080
EBITDA (operating revenue)	(24,899)	40,306	176,549	254,315	335,672
In-kind partner contribution	60,926	116,956	127,091	118,272	126,294
D&A	(11,667)	(11,667)	(11,667)	(11,667)	(11,667)
EBIT	24,361	145,595	291,973	360,920	450,299
Interest					
Net Income	24,361	145,595	291,973	360,920	450,299
(% of turnover)	6.42%	14.37%	17.79%	19.88%	22.07%

The above business metrics are presented as ‘vertically integrated’ across the value chain actors. The participation breakdown is shown in #1 above.

In addition to the increased cost of goods sold due to the materials cost increase, WaterSHED has revised the business metrics to take into account the participation of the enterprise (i.e. HappyTap enterprise).

II) Target Market Metrics: Results of sales message testing

WaterSHED aims to scale up the HappyTap project as a commercial venture, with results primarily being indicated by sales volume rather than as a normal educational project with results indicated by having messages repeated to make behavior change. Therefore, a sales messages test was carefully conducted in 2013 in order to evaluate which concise message can really trigger purchase decisions.

Key messages are divided into four main categories: Convenience (#1), Protect Family Health (#2), 'A valuable product' (#3) and a Fancy Product (#4). Thanks to the partnership with WSP Vietnam, especially through its specialist, Ms Nguyen ThiHien Minh, a member of HappyTap project advisory committee, the WaterSHED team has been shared promotion materials and research results of WSP – The Global Scaling Up Handwashing Project (2006-2011). It helped the team to refine key hygienic knowledge that are widely comprehensible to underprivileged people. It is how the category #2 was developed. Also from WSP research we found:

*“Promotion without Product: Discussion with mothers, and results from pre-testing handwashing stations, revealed that although knowledge of handwashing with soap after using toilet is high, they will forget if there is not a physical reminder right outside the latrine. Formative research also indicated availability of water and soap in the majority of households, although they were not always available together at a **convenient place** of handwashing.” - WSP, 2011*

Together with observation from ongoing target market research, the team had come to break down what the device can offer in terms of convenience for the target audience. The result was category #1 and its attendant 'concepts'. In terms of commercialization, a valuable product (category #3) is to illustrate opportunity cost for NOT possessing a HappyTap and practicing HWWS consistently. And finally, in terms of psychology, category #4 is to build fancy feeling for the new housewares category to see how it influences people's purchasing behavior.

Under the coordinating of the Women's Union, 20-30 local women participated in each sales test. The tests were held in a convenient location in the commune. Not all of people had good eyesight /or able to read the text on the mocked up posters, so pictures were collected to illustrate the sales messages. Pictures make low-educated people easily to follow up the entire test to fill in their response sheet. Pictures chosen in the Mocked-Ups are popular ones instead of highly professional art work. The team expected to get audience feedback of the message, not their being



Mocked-Up posters, HappyTap Sales message test, Vietnam, 2013

blown away by picture exhibition for entertainment. Popular photos taken in the field trip also helped the audience to see themselves in each sanitation scenario.

The outline of the Mocked-Up Sales-Message Tool is as following:

Message	Concept	Idea	Image / Media
Convenience	Avoid going far in inconvenient condition	Elderly people going outside at night	1. outside, unhappy
		Caretakers don't have to go outdoor HW station in rain	2. inside with happytap, happy
	Long-lasting water supply / avoid refilling often	Save physical activity – Pumping water	1. Show disgruntled caretaker (a mom/grandmom) can't go outdoor basin to wash hands in the rain
		Wash using less water	2. show a happy caretaker washing hands under roof watching her children safely
	Washing hands easily anytime and anywhere	HappyTap can put anywhere in / outside of house	Show a video of woman pumping water
		Normal handwashing can be inconvenient	Show HappyTap spray bar letting through just the right amount of water
	Easy for children	Target audience having surface water: don't spoil ceramic jar	Image of HappyTap in multiple places: (garden, kitchen, bathroom)...
		Target audience having piped water: control the fast pouring water	Image of woman assembling the necessary things (bowl, soap, walking outside)
		Children can easily use	1. To show children struggle to wash their hands alone using dirty hands directly putting in ceramic jar (common water storage in MD). And mom is in the background showing annoying face.
			2. to show children are criticized by their mom for pouring too much water everytime doing HW.
Protect family health	Avoid diseases	Educate about link between disease and handwashing - show 4 common dangerous diseases: diarrhea; EV-71; H5N1; Respiratory diseases.	1. Diarrhea
		Everyday unconscious dirty hands	2. EV-71 - children with rashes
			3. H5N1 - (people burning chickens with masks)
		4. Respiratory diseases (child with fever)	
	Children remember to wash hands by themselves	avoid mosquitos today, avoid future malaras and VHF	1.To show existing baby eating photo
			2.To show existing hands and peanut photos
	A high quality product with no harmful chemicals	show the children washing hands at dedicated handwashing station at school and show space at home, where it would never believably happen with children remember to wash by themselves	3.To show Northern Vietnamese cuisine that require to eat with your bare hands, instead of chopsticks and spoon: banhxeo (Vietnamese pancake); spring rolls
			1. To show mold HW basin
	A valuable product	Save money	2. To show HappyTap water to be covered, elevated, and because the waste water is controlled with the tube
		Save water	1. Dedicated HW station at school (internet)
Reasonable Price		2. To show the space not attractive to do/ remind hand washing	
a Fancy product	A Nice Product in your house	To show many products in the market now are using recycled or low-quality materials (dangerous, harmful materials)	
	A Healthy Family is a Happy and Prosperous Family	To calculate the cost for a disease case	
a Fancy product	A Healthy Family is a Happy and Prosperous Family	Not only does a healthy family enjoy more happiness, but they can invest more time, money, and energy in improving their education / business / leisure, etc	To calculate the cost for a disease case
			1. Show fast running water wasting
a Fancy product	A Healthy Family is a Happy and Prosperous Family	Not only does a healthy family enjoy more happiness, but they can invest more time, money, and energy in improving their education / business / leisure, etc	2. Show children making pure water storage dirty or soapy
			3. Show the plastic wash bin with children (using a lot of water)
a Fancy product	A Healthy Family is a Happy and Prosperous Family	Not only does a healthy family enjoy more happiness, but they can invest more time, money, and energy in improving their education / business / leisure, etc	To show how HappyTap really cheap with other household plastic products in the market
			HappyTap in various locations in a modern house.
a Fancy product	A Healthy Family is a Happy and Prosperous Family	Not only does a healthy family enjoy more happiness, but they can invest more time, money, and energy in improving their education / business / leisure, etc	1. A family with kids and old person are using HappyTap
			2. A women doing hand washing with HappyTap before preparing Food

❖ Scale of evaluation

a) Clarity

Attendants were shown four messages in succession. When each message is done, they were required to indicate along three levels of clarity:

- ◆ Not really clear (Low clear)
- ◆ Medium clear
- ◆ Very clear

b) Motivation

After all four messages were delivered, attendants were asked to look back and decide which message was strong enough to motivate them to buy a HappyTap. Understanding there can be a situation when rural people would like to buy but they don't mean they are affordable enough to responsible for the declaration, the team change the question into,

“What is the message that either....

- ◆ *makes sense the most*
- ◆ *is happiest*
- ◆ *is scariest*

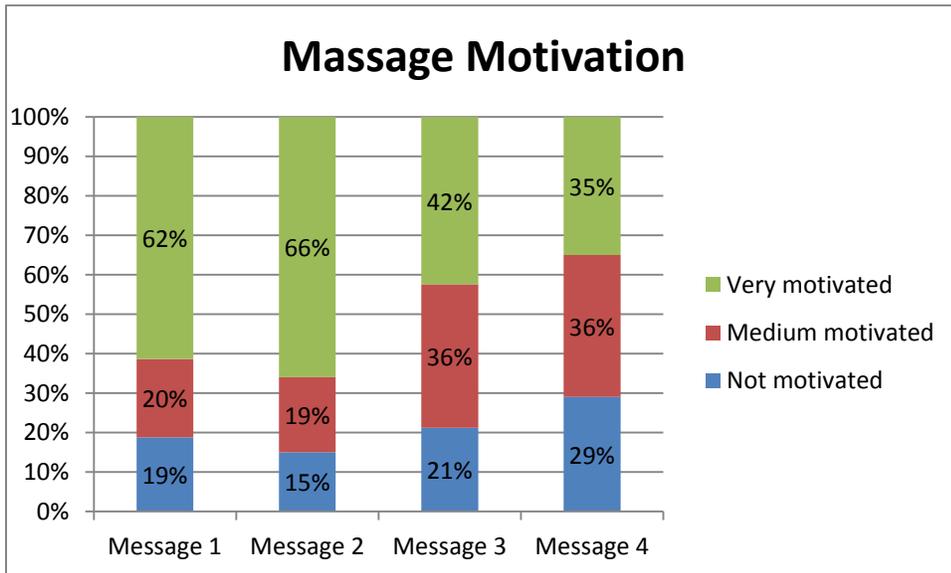
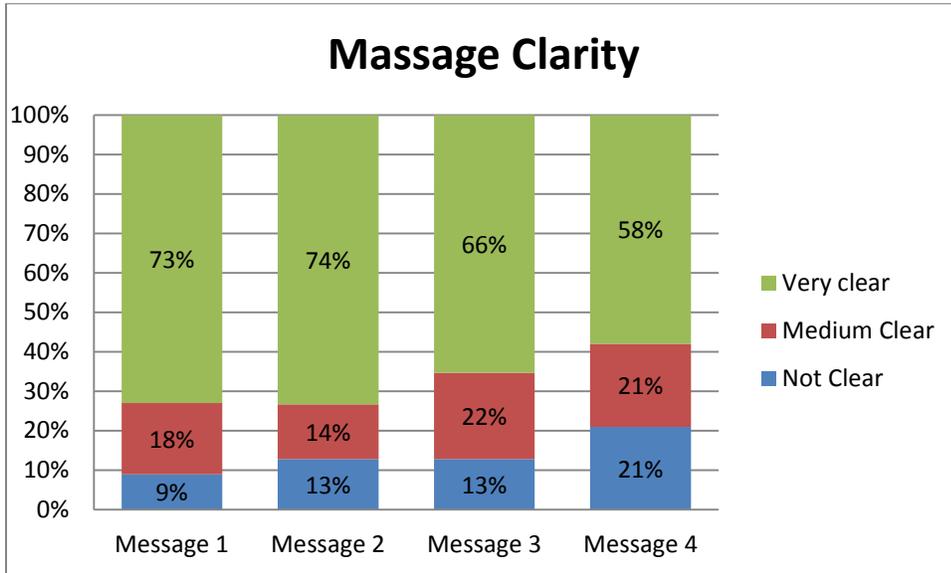
that you want to retell your husbands and family after the meeting and discuss with them to would buy a HappyTap for the home?”

The team called all of the sensations of “most logical”, “happiest” and “scariest” as related to motivation to buy HappyTap. Similar to clarity, motivation was scaled into three levels:

- ◆ Low motivated (not really motivate to buy)
- ◆ Medium motivated
- ◆ Highly motivated.

The result has shown that most of attendants, by 74% of total, were clear with the message of “Protect the family”, thanks to fundamental knowledge from Women Union promotion program in years. The message of “Convenience” was ranked second most comprehensive, by covering 73% of total vote. The trend happened similarly in Motivation where “Protect the Family” and “Convenience” accounted for

more than 60% of “Highly motivated” on each item, leaving “A valuable product” and “Fancy product” less than 50% on each message to receive motivation.

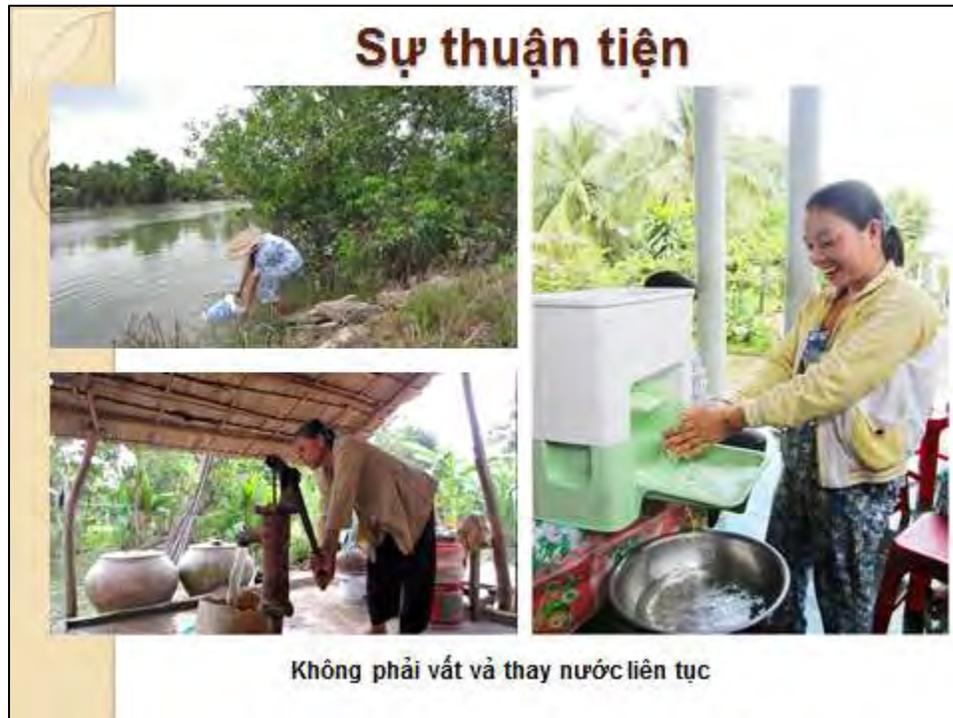


Reference:

Nga Nguyen, Nat Paynter and Minh HienThi Nguyen, 2011. *Vietnam, A Handwashing Behavior Change Journey for the Caretakers’ Program.*

Besides the percentages...

We learned that a presentation with picture illustrating sales messages is a right way to communicate with audience. In the next phase, Mocked-Up posters should be fewer for audience to concentrate. Each poster should remain being designed into 2 columns. On the left, images of angles of popular rural house condition/ daily routine are put to immerse the barriers local people faced everyday leading to HWWS “knowing” but *not* “doing” (before HappyTap). On the right, there is easy solution for each scenario on the left, by using HappyTap (after HappyTap).



A sample of Convenience (Su thuan tien).

On the left: physical strenuous work everytime taking water (from river and pump) for HWWS.

On the right: HappyTap in the home. Convenient to do HWWS. Consuming less water in each time HW. No more frequent refill water.

Short explanation: No more frequently refill water (Khong phai vat va thay nuoc lien tuc).

Presentation with mocked-up posters makes people more excited to make purchase decision, with more generous budget. In last target market research (2012), 17% participants estimate HappyTap unit price to be 150k VND. In this Sales Message Test, the presenting of mocked-up sales messages make many women confidently raised their voice in public, “150k VND is a good price due to its huge great financial (water and medical cost loss) and non-financial (convenience) it brings!”. Many people are willing to buy the unique prototype of the project right away.

From target market research to sales message research, we believe 20 people/sales event would guarantee the strongest interaction between HappyTap speakers and every single participants.

Underprivileged people’s understanding ability depends on what they have been told over and over and what they really experienced in daily life. It explains for highest percentages of Clarity and Motivation

fall to ‘Protect the family’ (lessons repeated over and over through WU) and ‘Convenience’ (individual experience) among 4 messages. So, in the future, in order to deliver new concepts of sanitation, WaterSHED needs to integrate with other related organization to make a strong push and pull in audience mind.

Women’s Union made an invaluable contribution in previous meetings. They not only arrange local participants but also follow the entire presentation and were the quickest to recognize who was lost in the crowd to help explain in personal and local way. One more step to do in Phase II is an official training course to give Women Union an act in promotion to collaborate with Sales Agent, to maximize the effective control of each sales event, instead of leaving their enthusiastic but unprompted help.

III) Target Market Metrics: Product and brand aesthetic preferences

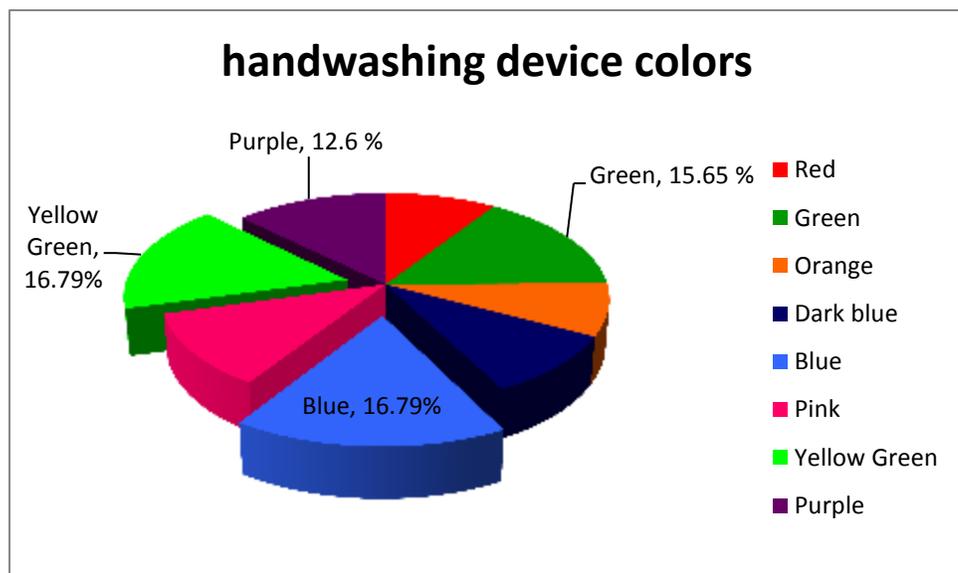
Colors and naming

Although target market research conducted in 2012 showed that consumers in initial target provinces are excited by the new hygienic houseware category (e.g. the HappyTap), WaterSHED believes appropriate branding such as product names and color will be among key factors to create inherent value in the eyes of consumers and early sales success. Understanding favorite brand names and colors are diverse in different educational backgrounds and social classes, and so the WaterSHED team integrated the handwashing device name and color options in the sale message test in order to evaluate target market’s response.

a. Color

Through various times working with plastics manufacturers, such as DuyTan and Tashing, for the mould process, the WaterSHED team also asked them for advice about colors for popular plastics housewares that are widely welcomed by consumers of rural market. The most common answers are red and blue. Since HappyTap is targeted to caretakers and their children, the team would like to test more colors to see if there exists any special color trend.

HappyTap was shown mocked up in eight different colors by posters hanging on the wall in every group meeting. The colors were: red, dark blue, blue, green, yellow green, orange, pink and purple. The team estimated that 8 was a sufficient number of options for the audience to pay attention to all at once, and to evaluate their favorites. The



evaluation should reveal the consumers' color attraction rather than biased separate picture location in a huge picture arrangement/collection. Each participant was given two bookmark stickers to go to the stage to stick to two most outstanding colors to them. Experience in communication with the consumers before showed that underprivileged women tend to mimic what the crowd do to make sure they are in safe area and not being judged wrong alone. In a meeting of 20 participants, the team wanted to see if the first sticker is on the most popular color that pioneers (thought-leaders) already made, the second sticker would help to point out the true favorite color of the individual.

Of the 128 people participating in the research, blue and yellow green shared the same highest percentage at 16.79%. The third most likable color, attracting 15.65% attendants was green.

"They are all good colors. However, I think blue looks so cool on this prototype. Pink would work for my little child, I believe"

A mother in Hieu Thuan commune, Vung Liem dist, Vinh Long prov.

(WaterSHED Vietnam research, April 2013)



"Dark blue would help to hide the scratch on the surface in long term use but green definitely brings a fresh feeling."

Attendat, Tan Binh commune, Binh Tan dist, Vinh Long prov.



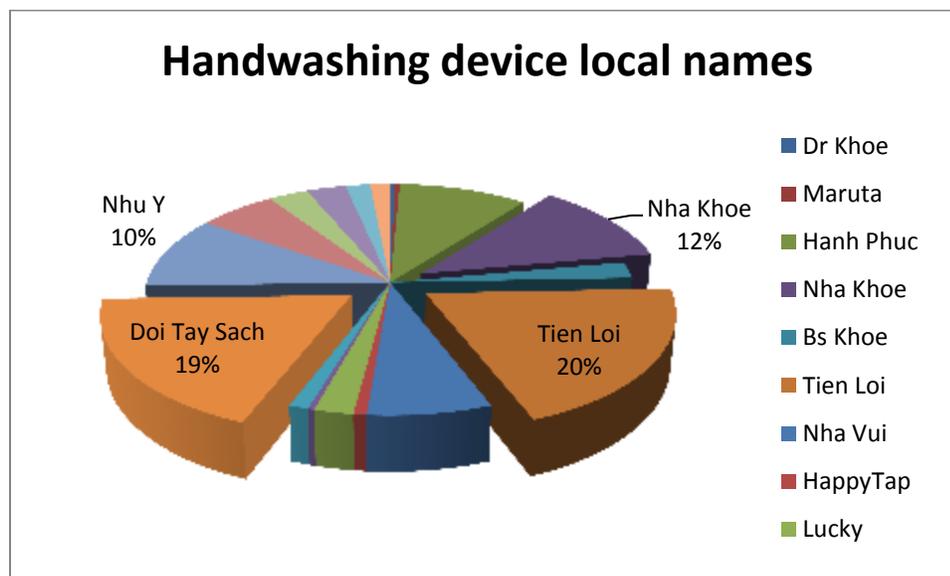
b. Names

There is little doubt that choosing a meaningful and easy to remember name would be a cheaper and more effective tool to promote viral marketing than any other kinds of communication tools. Especially in Vietnamese rural culture, women have tendency to discuss with their husband and neighbors before they buy a product, so an appropriate name would help a great deal for this process. It explains why WaterSHED made the test to select the favorite names for the handwashing device.

Eighteen names chosen in final list are divided into five main categories: direct-relating to Sales Messages (#1), Primary English (#2), Richness (#3), Sensation (#4), and Image (#5). Group #1 is to emphasize key message in short nouns so that people easily recall when they consider purchasing after a sale event. In many cases, primary English names make consumers feel like the HappyTap is a global, high-quality product. Last but not least, though the names may not relate to either physical image or product function, many consumers tend to buy things having meaningful names in terms of luck and wealth meaning range because they believe, once they get the product in their house, they bring that "luck" and "wealth" into the house too.

#	Name	Meaning	Group
1	Ban Tay Sach	A pair of Clean Hands	Direct-relating to Sales Messages.
2	Tien Loi	Convenience	
3	Dr Khoe	Dr Healthy	
4	Bs Khoe	Dr Healthy	
5	Nha Vui	Happy Family	
6	Nha Khoe	Healthy Family	
7	HappyTap	HappyTap	Primary English names
8	Viettap	Viettap	
9	Lucky	Lucky	
10	Golden	Golden	
11	HappyTap	HappyTap	Richness
12	Phu Quy	Rich and honor	
13	Gia Hung	Upcoming prosperous family	
14	Nhu Y	Satisfaction	Sensation
15	Truong An	Sustainable Peace	
16	Hanh Phuc	Happiness	
17	Maruta	Handwashing device	Image
18	Rong vang	Golden Dragon	

Names are not explained to participants. Similar to color exercise, every attendant was given two bookmark stickers to select the names they have the good feeling to the most. The research result showed that, people liked Tien Loi (Convenience) the most as 20% participants have chosen it. The second most favorite name, taking 19% of the total vote, is Doi Tay Sach (A pair of Clean Hands). Nha Khoe (Healthy Family) and Nhu Y (Satisfaction) are the other preferable, by covering more than 10% of total vote on each of them.



(WaterSHED Vietnam research, April 2013)

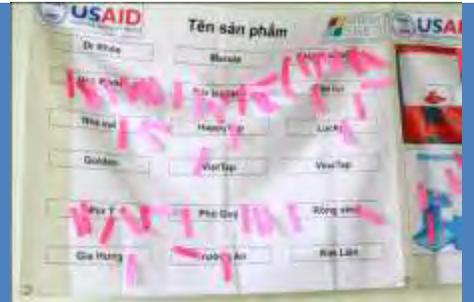
“I like it (HappyTap) for its convenience so Tien Loi (Convenience) would be the first pick. Though you know, Nhu Y (Satisfaction) is a beautiful name of all time”

Attendant in Tan Binh commune, Vung Liem dist, Vinh Long prov.



“I would love to own a Nha Khoe (Healthy Family) in the house. And, Doi Tay Sach (A pair of Clean Hands) is of course the most appropriate for this device”

Attendant in Tan Thoi village, Binh Tan dist, Vinh Long prov.





HappyTap – Handwashing Device Commercialization Project

Final Impact Statement

USAID Development Innovation Ventures - Stage 1

APS #M/OAA/GRO/LMA/11-2000a

1. Executive Summary

The *HappyTap* - Handwashing Device Commercialization Project was funded by USAID Development Innovation Ventures (DIV) program and implemented by WaterSHED for twelve months ending April 23, 2013.

The objective of the project was to test the commercial potential for the manufacture and distribution of a low-cost, fixed place handwashing device for households in Vietnam. WaterSHED was tasked with test-marketing the device in two provinces, and the results would provide the basis to assess if and how a private-sector led scale-up of manufacture and distribution would be viable.

The impact of the project was that it demonstrated the real-world viability of the product and the approach - both of which mark a departure from current practices and are significantly more cost-effective. The test-marketing validated assumptions about the product price, distribution strategy, and ultimately the marketability of the device. During test-marketing, 95 percent of consumers said they would wash their hands more frequently with a *HappyTap*, and 79 percent said they would buy one if it was available in the market. WaterSHED identified manufacturer and distributor partners and demonstrated the market opportunity for the product with targeted test-marketing in two pilot provinces in South Vietnam (Tien Giang and Vinh Long). The team built a consortium of partners including the Women's Union, the Ministry of Health, Unilever, and others, whose objectives and incentives are aligned to maximize product uptake.

The results of the stage 1 project set the stage for an expanded effort to create a dynamic commercial market in Vietnam for handwashing devices in which businesses can earn an attractive return, consumers are empowered, and in which the gains from large scale behavior change programs are cemented with consistent, practiced behavior.

The health outcomes of consistent handwashing are significant. In Vietnam alone, the economic costs due to poor sanitation are estimated at US\$262 million per year¹, and diarrhea is responsible for more child deaths worldwide than HIV/AIDS, Tuberculosis, and Malaria combined. A systematic review of observational and experimental studies cited reductions in diarrhea of 48 percent for handwashing with soap (Cairncross, et al., 2010). Effective handwashing with soap in Vietnam would significantly reduce an estimated 900,000 cases per year of scabies, helminthes, hepatitis A and trachoma. It would also lower the substantial economic and health burden imposed by diarrheal disease and respiratory infections – two of the top three causes of child mortality in the Lower Mekong region.

As a result of this DIV stage 1 grant, the project has been selected as a finalist in the prestigious *Social Enterprise Support Program* (SESP) 2013, which is a joint program between the Centre for Social Initiatives Promotion (CSIP) and Diageo plc. Plan-W. *HappyTap* was selected as social enterprise with significant potential both as business and as an opportunity to empower women.

Project Start Date:	24-April-2012	Total USAID Funding:	100,000 USD
Project End Date:	23-April-2013	Implemented by:	WaterSHED
Location:	Vietnam	Sector:	Hygiene (WASH)

¹ Economic impacts of sanitation in Vietnam. Thang P, Tuan H, Hutton G. World Bank, Water and Sanitation Program. 2008.

2. Major Deliverables

	Date	Deliverable	Completed
1	08-May-2012	<ul style="list-style-type: none"> Project implementation plan 	✓
2	23-Aug-2012	<ul style="list-style-type: none"> Contracts with partners executed Advisory Committee formed Management Team formed Baseline business metrics, e.g.: <ul style="list-style-type: none"> product cost-effectiveness compared to competing technologies expected return on investment target market indicators expected business-line profitability expected supply chain model and costs sales performance indicators gross and net margins inventory turns Implementation plan with partners 	✓ ✓ ✓ ✓ ✓
3	23-October-2012	<ul style="list-style-type: none"> Sales training material developed Test-marketing launch in 2-3 provinces Update to business metrics listed in milestone 3 Baseline target market metrics in test provinces, especially awareness and intent to purchase 	✓ ✓ ✓ ✓
4	23-January-2013	<ul style="list-style-type: none"> Shortlist of potential private partners for stage 2 Draft structure of social venture Update to business and target market metrics listed in milestones 2 and 3 	✓ ✓ ✓
5	23-April-2013	<ul style="list-style-type: none"> Provide endline metrics listed in milestones 2 and 3 	✓
	23-July-2013	<ul style="list-style-type: none"> Deliver final impact evaluation statement 	✓

3. Key Outputs:

A. Shortlist of potential private partners for Stage 2

During this stage 1 project, WaterSHED identified manufacturer and distributor partners and built a consortium of public and private partners including the Women's Union, the Ministry of Health, Unilever, and others. Please see table below for the shortlist of private partners that represent potential sources of investment during the expansion stage planned to follow DIV stage 1. Based on the results of this project, WaterSHED will plan to play a non-central role in the private-sector led commercial roll-out of the *HappyTap* handwashing product.

Shortlist of Potential Private Partners:

Category	Name	Brief description	Participation in <i>HappyTap</i> Commercialization
<p>Plastics enterprise: Plastic enterprise is a key factor that decides important issues around <i>HappyTap</i> product: quality, distribution and logistics.</p>	Dai Dong Tien plastics Corp.	<ul style="list-style-type: none"> - One of national leading plastic enterprise in Vietnam - Having distribution channel in 64 provinces of Vietnam. - Leading plastic enterprise that has regular charity activities. -Have branch in Phnom Penh. 	<ul style="list-style-type: none"> - Can recommend its distributors all around the country to be a link of <i>HappyTap's</i> distribution channel. - Dai Dong Tien brand name is the second most popular plastic brand name that local people in Vinh Long and Tien Giang can immediately recall (the first one is DuyTan). - Dai Dong Tien's method of commission: it gives very little commission to distributor but very high commission to retailers. It seeks local retailers and wants to keep direct contact from retailer with its company. It is why MyKy company does not work with Dai Dong Tien for years. It could be a good chance for <i>HappyTap</i> to learn lessons with its retailers. - Difference from DuyTan: DuyTan has provincial distributors. It based on previous sales volume to allow distributors different level of loan/deposit and offer various stages of incentives. However, DuyTan does not control retail price, it does not control distribution channel to consumer at all. Distributors have their own distribution channel in the region and feel free to decide commission at each link of the distribution channel. DuyTan just doesn't involve.
	DuyTan plastic corp.	<ul style="list-style-type: none"> - One of national leading plastic enterprise in Vietnam. - Achieved High Quality Vietnam Product Certificate 15 times every year since this the certificate was born in 1997. - Achieved "Golden Supplier 2010" certificate rewarded by Unilever - Unilever is it's #1 client 	<ul style="list-style-type: none"> - Can recommend its distributors all around the country to be a link of <i>HappyTap's</i> distribution channel. - <i>HappyTap</i> can receive a very competitive delivery cost because DuyTan has lorry system to deliver their goods to provinces of South Vietnam once or twice a week. - Our research result shows that underprivileged people are highly aware of DuyTan brand name as high quality plastic producer. It can help the project in getting approach to local market.
	Tashing	- A plastic housewares enterprise	- Have strong interest in working with WaterSHED as it used to

	Corp.	<p>working in more than 20 years on the field.</p> <ul style="list-style-type: none"> - Have experience in working with NGO. - Is a family run business so it is flexible in making decision with partners. - Managing partner has strong commitment to the <i>HappyTap</i> project, and earned MBA in Australia 	<p>cooperate with us before.</p> <ul style="list-style-type: none"> - The strongest partners of Tashing now are big supermarket chains such as: Coop Mart, Lotte Mart and Metro. Cooperating with <i>HappyTap</i> project, Tashing can have very high interest in expanding in depth its market to rural regions whose market remain very potential for Tashing.
<p>Distributor: all regions have distributors at provincial level. However, to ensure strength of distributors in same level, the project expects to have such professional distributor like MyKy to support when needed.</p>	MyKy Service and trading Co.	<ul style="list-style-type: none"> - A well-known company based in HCMC focuses on distributing plastic, inox and ceramic products. - Haven't had distribution channel yet in the south of Vietnam but the provinces in central and north of Vietnam. 	<ul style="list-style-type: none"> - In the case of expansion in stage 2 beyond south Vietnam, MyKy can bring its experience in working at provinces of central and north of Vietnam (whose distribution channel is much worse that need such company like Myky to involve to distribute products)
<p>FMCG company: even though <i>HappyTap</i> is not an Fast Moving Consumer Good, WaterSHED and FMCG enterprise share a common interest in improving living standard of community in which hygienic knowledge and behavior is inevitably a main aspect.</p>	Unilever Vietnam; and [Procter & Gamble Vietnam]	<ul style="list-style-type: none"> - An international FMCG corporation that gains largest proportion of the consumer in domestic market. -Have strong commitment in community development in which HWWS is among their top priority. -Already did some HWWS projects in integration with Ministry of Health. 	<ul style="list-style-type: none"> - Unilever brings their experience in developing promotional messages as well as marketing experience in such educational campaign they did before. - Unilever has spent 10,000,000,000 VND (~500,000 USD) per year on the "Handwashing with Soap for Healthier Vietnam" project since 2007. The first phase of the project (2007-2011) was implemented in 80 communes of 16 provinces and now following up with second phase (2012-2016) to cover 12 more provinces. - Branded 'Unilever' versions of <i>HappyTaps</i> will be provided by Unilever in schools and health centers.
Private-Sector Focused NGOs and Organizations			
<p>Other NGOs: sharing same passion in improving community, other NGOs and</p>	CSIP	<ul style="list-style-type: none"> - A Vietnamese NGO focused on supporting social enterprise whose has outstanding innovation for social change. Its support includes: 	<ul style="list-style-type: none"> -CSIP can consult how to operate <i>HappyTap</i> project as a social enterprise. - Connect <i>HappyTap</i> project to related partners, government and community. This is especially helpful in stage 2 - scaling up phase where

<p><i>HappyTap</i> project should be integrated in order to share mutual strength for maximize probability of solving relating concerns.</p>	<ul style="list-style-type: none"> + Seeking social enterprise in beginning stage and soaring stage. + Provide support package includes: <ul style="list-style-type: none"> (i) 7,000USD for social enterprise in beginning stage and 30,000USD for social enterprise in soaring stage. (ii) Recommend social enterprise to related partners, government and community. (iii) Establish operations and business ability. 	<p>recommendation to various provinces is needed.</p>
<p>World Bank</p>	<ul style="list-style-type: none"> - The Water and Sanitation Program (WSP) is a multi-donor partnership administered by the World Bank to support poor people in obtaining affordable, safe and sustainable access to water and sanitation services. - In 2006-2010, WSP Vietnam has “The Global Scaling Up Handwashing Project” that approached 2.2 million women (15-49 years old) and children (06-10 years old) through direct promotion. 	<ul style="list-style-type: none"> - WSP Vietnam has recommended <i>HappyTap</i> project to main partner in “The Global Scaling Up Handwashing Project” that is Women’s Union of Tien Giang province. - WSP Vietnam has shared their methodology, research result for <i>HappyTap</i> project since first days. - Thanks to its project in 2006-2010, underprivileged people in Tien Giang have good awareness of HWWS, at the same time, Women’s Union of this province is professional in promoting HWWS. The knowledgeable audience and well-qualified promotion staff that WSP left after its project are firm foundation for <i>HappyTap</i> project’s success in stage 2. - WSP continues to observe and consult <i>HappyTap</i> by their rich experience in the HWWS field.
<p>CHOBA</p>	<ul style="list-style-type: none"> - The <u>CHOBA</u> (Community Hygiene Output-Based Aid) project was founded by the Women's Union (WU), East Meets West Foundation (EMWF), and the MoH for implementation from 2012 to 2015. 	<ul style="list-style-type: none"> - Nearly 125,000 low income households will receive rebates for purchasing / building toilets and <u>handwashing facilities</u> with soap and water. - WaterSHED / USAID were early partners and investors in pilot for CHOBA, and EMWF is keen to have affordable products on the market to help them achieve a successful outcome (at least 1 handwashing station near the toilet).

B. Testing Marketing

Overall Goal	<ul style="list-style-type: none"> To test how handwashing with soap information, education campaign (IEC) and sales promotion can be integrated within a group meeting setting at village scale
Specific Goals	<ul style="list-style-type: none"> To see which messages trigger villagers to purchase a handwashing device for their home so that they have a tool/reminder to change their behavior from “knowing” to “doing” Villagers’ reference on brand and colors of <i>HappyTap</i>
Location:	<ul style="list-style-type: none"> Villagers from Binh Tan and Vung Liem districts, Vinh Long province attended the tests under the coordination of the Women’s Union
Results:	<ul style="list-style-type: none"> Villagers preferred group meeting where they can get sanitation and hygiene knowledge in a lively way with colorful posters for illustration and a real device for demonstration Villagers get the best clarity and motivation from the messages of “Convenience” and “Protect health” Blue, yellow-green, and green are three top favorite colors for <i>HappyTap</i> “Doi Tay Sach” (A pairs of Clean Hands) and “Tien Loi” (Convenience) are top favorite names for <i>HappyTap</i>

i. Sales messages

WaterSHED aims to scale up the *HappyTap* project as a commercial venture, with results primarily being indicated by sales volume rather than as a normal educational project with results indicated by having messages repeated. Therefore, a sales messages test was carefully conducted in 2013 in order to evaluate which concise message can really trigger purchase decisions.

Key messages were divided into four main categories: Convenience (#1), Protect Family Health (#2), ‘A valuable product’ (#3) and a Fancy Product (#4). Thanks to the partnership with WSP Vietnam, WaterSHED gained access to the promotional materials and the research results of WSP’s *Global Scaling Up Handwashing Project (2006-2011)*, which helped the team to refine key hygienic knowledge tools that are widely comprehensible to underprivileged people. WSP’s research confirmed:



*“Promotion without Product: Discussion with mothers, and results from pre-testing handwashing stations, revealed that although knowledge of handwashing with soap after using toilet is high, they will forget if there is not a physical reminder right outside the latrine. Formative research also indicated availability of water and soap in the majority of households, although they were not always available together at a convenient place of handwashing.” - WSP,2011**

* Nga Nguyen, Nat Paynter and Minh HienThi Nguyen, 2011. *Vietnam, A Handwashing Behavior Change Journey for the Caretakers’ Program.*

Together with observations from ongoing target market research, the team had come to break down what the device can offer in terms of convenience for the target audience. The result was category #1 and its attendant ‘concepts’. In terms of commercialization, a valuable product (category #3) is to illustrate opportunity cost for NOT possessing a *HappyTap* and practicing HWWS consistently. And finally, in terms of psychology, category #4 is to build fancy feeling for the new housewares category to see how it influences people’s purchasing behavior.



Mocked-Up posters, HappyTap Sales message test, Vietnam, 2013

Under the coordinating of the Women’s

Union, 20-30 local women participated in each sales test. The tests were held in a convenient location in the commune. Not all of people had good eyesight /or able to read the text on the mocked up posters, so pictures were collected to illustrate the sales messages. Pictures make low-educated people easily to follow up the entire test to fill in their response sheet. Pictures chosen in the Mocked-Ups are popular ones instead of highly professional art work. The team expected to get audience feedback of the message, not their being blown away by picture exhibition for entertainment. Popular photos taken in the field trip also helped the audience to see themselves in each sanitation scenario.

The outline of the Mocked-Up Sales-Message Tools was as following:

Message	Concept	Idea	Image / Media
Convenience	Avoid going far in inconvenient condition	Elderly people going outside at night	1. outside, unhappy 2. inside with <i>HappyTap</i> , happy
		Caretakers don't have to go outdoor HW station in rain	1. Show disgruntled caretaker (a mom/grandmom) can't go outdoor basin to wash hands in the rain 2. show a happy caretaker washing hands under roof watching her children safely
	Long-lasting water supply / avoid refilling often	Save physical activity – Pumping water	Show a video of woman pumping water
		Wash using less water	Show <i>HappyTap</i> spray bar letting through just the right amount of water
	Washing hands easily anytime and anywhere	<i>HappyTap</i> can put anywhere in / outside of house	Image of <i>HappyTap</i> in multiple places: (garden, kitchen, bathroom)...
		Normal handwashing can be	Image of woman assembling the necessary things (bowl,

		inconvenient	soap, walking outside)
	Easy for children	Target audience having surface water: don't spoil ceramic jar	1. To show children struggle to wash their hands alone using dirty hands directly putting in ceramic jar (common water storage in MD). And mom is in the background showing annoying face.
		Target audience having piped water: control the fast pouring water	2. to show children are criticized by their mom for pouring too much water every time doing HW.
		Children can easily use	3. To show children do HW easily with <i>HappyTap</i> (new photo) 4. photoshop image close-up
Protect family health	Avoid diseases	Educate about link between disease and handwashing - show 4 common dangerous diseases: diarrhea; EV-71; H5N1; Respiratory diseases. "	1. Diarrhea 2. EV-71 - children with rashes 3. H5N1 - (people burning chickens with masks) 4. Respiratory diseases (child with fever)
		Everyday unconscious dirty hands	1.To show existing baby eating photo 2.To show existing hands and peanut photos 3.To show Northern Vietnamese cuisine that require to eat with your bare hands, instead of chopsticks and spoon: <i>banh xeo</i> (Vietnamese pancake); spring rolls
		avoid mosquitos today, avoid future malarias and VHF's	1. To show mold HW basin 2. To show <i>HappyTap</i> water to be covered, elevated, and because the waste water is controlled with the tube
	Children remember to wash hands by themselves	show the children washing hands at dedicated handwashing station at school and show space at home, where it would never believably happen with children remember to wash by themselves	1. Dedicated HW station at school (internet) 2. To show the space not attractive to do/ remind hand washing
	A high quality product with no harmful chemicals		To show many products in the market now are using recycled or low-quality materials (dangerous, harmful materials)
	A valuable product	Save money	To calculate the cost for a disease case
Save water			1. Show fast running water wasting 2. Show children making pure water storage dirty or soapy 3. Show the plastic wash bin with children (using a lot of water)
Reasonable Price			To show how <i>HappyTap</i> really cheap with other household plastic products in the market
A Fancy product	A Nice Product in your house		<i>HappyTap</i> in various locations in a modern house.
	A Healthy Family is a Happy and Prosperous Family	Not only does a healthy family enjoy more happiness, but they can invest more time, money, and energy in improving their education / business / leisure, etc.	1. A family with kids and old person are using <i>HappyTap</i> A family with <i>HappyTap</i> in nice house, nice family, looking very happy...
			2. A women doing hand washing with <i>HappyTap</i> before preparing Food 3. A husband doing hand washing with <i>HappyTap</i> after back from the field

(*HappyTap Sales Message Test, Vietnam, 2013*)

a) Clarity

Attendants were shown four messages in succession. When each message is done, they were required to indicate along three levels of clarity:

- Not really clear (Low clear)
- Medium clear
- Very clear

b) Motivation

After all four messages were delivered, attendants were asked to look back and decide which message was strong enough to motivate them to buy a *HappyTap*. Understanding there can be a situation when rural people would like to buy but they do not want to be held responsible for the declaration, the team asked the question:

“What is the message that either....

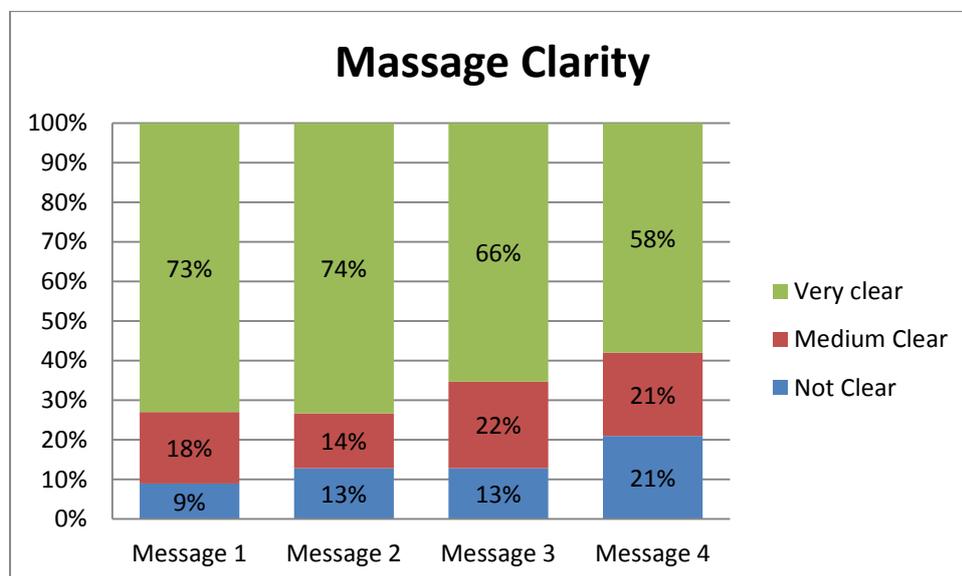
- *makes sense the most*
- *is happiest*
- *is scariest*

that you want to retell your husbands and family after the meeting and discuss with them to would buy a HappyTap for the home?”

The team called all of the sensations of “most logical”, “happiest” and “scariest” as related to motivation to buy *HappyTap*. Similar to clarity, motivation was scaled into three levels:

- Low motivated (not really motivate to buy)
- Medium motivated
- Highly motivated.

The result has shown that most of attendants, by 74% of total, were clear with the message of “Protect the family”, likely thanks to fundamental knowledge from Women Union promotion program over the years. The message of “Convenience” was ranked second most comprehensive, by covering 73% of total vote. The trend happened similarly in Motivation where “Protect the Family” and “Convenience” accounted for more than 60% of “Highly motivated” on each item, leaving “A valuable product” and “Fancy product” less than 50% on each message to receive motivation.

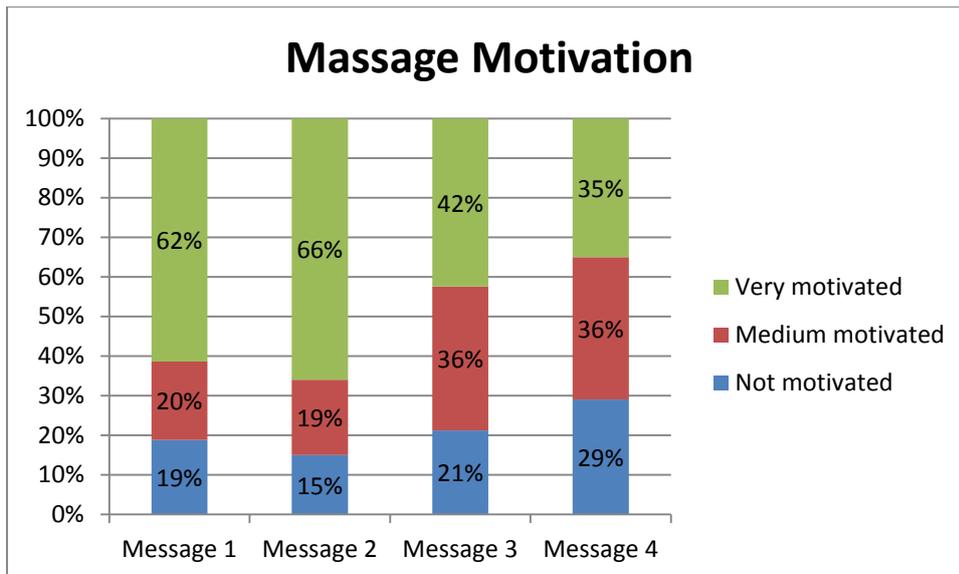


Message 1: Convenience

Message 2: Protect the Family

Message 3 Valuable Product

Message 4: A Fancy Product



Besides the percentages...

WaterSHED learned that a presentation with picture illustrating the sales messages is an effective way to communicate with the audience. In the next phase, posters should be fewer for the audience to concentrate. Each poster should remain being designed into 2 columns. On the left, images of angles of popular rural house condition/ daily routine are put to immerse the barriers local people faced everyday leading to HWWS “knowing” but *not* “doing” (before *HappyTap*). On the right, there is easy solution for each scenario on the left, by using *HappyTap* (after *HappyTap*).

A sample message of *Convenience* theme (*su thuan tien*).

On the left: physical strenuous work every time taking water (from river and pump) for HWWS.

On the right: *HappyTap* in the home. Convenient to do HWWS. Consuming less water in each time HW. No more frequent refill water.

Short explanation: No more frequent refilling of water (*Khong phai vat va thay nuoc lien tuc*).



A presentation with mocked-up posters makes people more excited to make purchase decision, with more generous budget. In last target market research (2012), 17% participants estimate *HappyTap* unit price to be 150k VND. In later sales message tests (2013), the presentation of mocked-up sales messages made many women confidently raised their voice in public, “150k VND is a good price due

to its huge great financial (water and medical cost loss) and non-financial (convenience) it brings!”. Many people are willing to buy the unique prototype of the project right away.

From target market research to sales message research, we believe 20 people/sales event would guarantee the strongest interaction between *HappyTap* speakers and every single participants.

Underprivileged people’s understanding ability depends on what they have been told over and over and what they really experienced in daily life. It explains for highest percentages of Clarity and Motivation fall to ‘Protect the family” (lessons repeated over and over through WU) and “Convenience” (individual experience) among 4 messages. So, in the future, in order to deliver new concepts of sanitation, WaterSHED needs to integrate with other related organization to make a strong push and pull in audience mind.

Women’s Union made an invaluable contribution in previous meetings. They not only arrange local participants but also follow the entire presentation and were the quickest to recognize who was lost in the crowd to help explain in personal and local way. One more step to do in Phase II is an official training course to give Women Union an act in promotion to collaborate with Sales Agent, to maximize the effective control of each sales event, instead of leaving their enthusiastic but unprompted help.

ii. Product Price

On the **supply side**, WaterSHED researched the full product cost and estimated the margins that would be necessary through each level of the supply chain, as elaborated in the business metrics provided in DIV milestone reports. One of the manufacturer partners gave us a credible estimate of the total cost (when producing at volume) of 85,000 VND per unit (approx: \$4.25). With that information, we explored consumer reactions to a retail price based on cost-plus (i.e. cost-of-goods-sold plus expected supply chain margins) With further testing and after gaining more experience with the product components, the best quotation came from a mix of two different manufacturers, with a total cost of 114,000 VND per unit (approx. \$5.70). At the late stages of our stage 1 grant period, it also became apparent that a UV protection additive was required to ensure durability of the handwashing device in the sun.

On the **demand side**, WaterSHED has collected information from a variety of actors in the plastic-goods supply chain as well as from other experts in consumer goods.

Consumers:

Being asked to guess the price of *HappyTap*, most of villagers had no clue at first sight. They said it was the first plastic handwashing device they have ever seen. They didn’t have any reference of a product in same category to compare because a similar product has not existed. In the first research field trips, the WaterSHED team witnessed villagers compare *HappyTap* to plastic chairs and table - two popular plastic products they frequently see (or at least, in the meeting room where the research was held). Linking the size and big plastic surface (and therefore weight of plastic used) between the *HappyTap* and those table and chairs, 34% of people estimated the *HappyTap* should retail for VND100k (~US\$5) per unit.

In a later research field trip, with sales message prototypes displayed to the audience, the team witnessed villagers using same technique: comparing the *HappyTap* to different categories of plastic products. But this time, with a better perception of the *HappyTap* due to the sales messages, more villagers confidently said out loud, “It would be VND150k (~US\$7) for one device!”. WaterSHED did observe changes in the stated expected price with the inclusion of better developed sales message prototypes. To a certain extent, we believe that the more carefully that sale messages are prepared, the higher customers will be willing to pay for *HappyTap*.

Overall during field testing, 62 percent of consumers indicated that they were willing to purchase the *HappyTap* at 120,000 VND. Nearly one-third of target market consumers estimated its retail cost at above 150,000 VND (12 percent estimated it to be above 175,000).

Experts

WaterSHED’s advisory board for the stage 1 project included experts from the plastics business, entrepreneurs, public health experts, and an expert in fast-moving consumer goods. We received varying advice regarding pricing strategy, but generally were encouraged to pursue a ‘premium’ pricing strategy. The *HappyTap* will not compete against other products based on price, but rather on its premium aesthetics, feature benefits, and abstract appeal. A current Vice-President of Unilever Vietnam recommended to set the MSRP (manufacturer’s suggested retail price) at 300,000 VND (approx. \$15.00) to bolster the concept that it is an aspirational product, but then to allow retailers and distributors to discount on a case by case basis.

As WaterSHED begins stage 2 scale-up preparations, the team is also considering the risk of setting the price too low and then having difficulty increasing beyond the (albeit high) rate of annual inflation.

Comparable Products

Handwashing with soap has long been promoted in Vietnam by governments and NGOs through Behavior Change and Information & Education Campaigns (BCC and IEC) with the goal of raising awareness among beneficiaries. While these interventions are the most relevant comparables to the *HappyTap* commercialization project in terms of cost per development outcome, it is important to note that they are not competitive and very much serve to reinforce handwashing device marketing.

To a limited extent, ceramic handwashing sinks and dish sinks can now be seen in the Mekong Delta. They are also both visible in movies and in high class hotels and restaurants, and many villagers recall seeing them. However, they understand such sinks to be significantly out of their range of affordability. Interestingly, they mentioned that it is not only about money, but also about aesthetics. Many consumers indicate that those sinks are too fancy to put in their house. In comparison, *HappyTap*, with its affordable price, friendly design and movability, is much more worthy of purchase consideration.

iii. Product and brand aesthetic preferences

Although target market research conducted in 2012 showed that consumers in initial target provinces are excited by the new hygienic housewares category (e.g. the *HappyTap*), WaterSHED believes appropriate branding such as product names and color will be among key factors to create inherent value in the eyes of consumers and early sales success. Understanding favorite brand

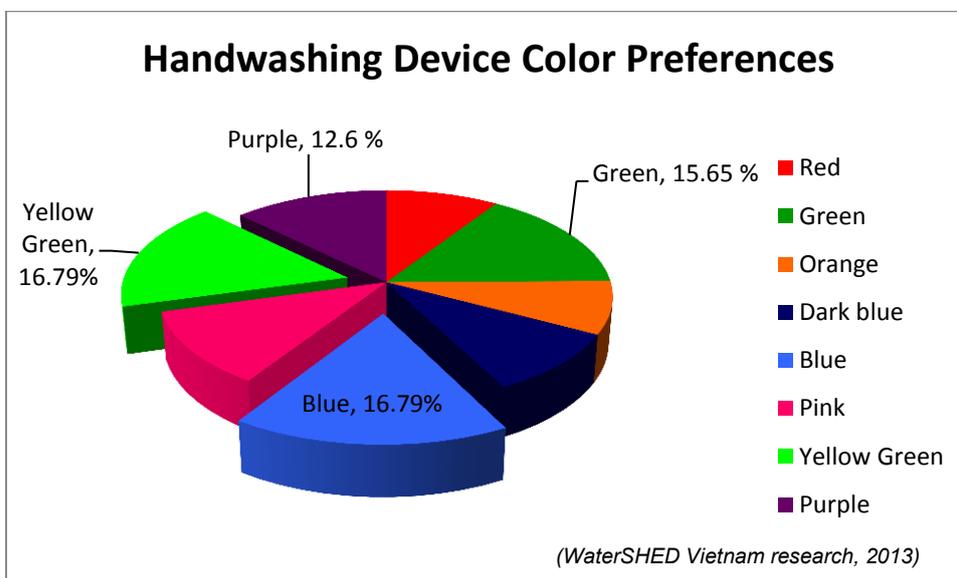
names and colors are diverse in different educational backgrounds and social classes, and so the WaterSHED team integrated the handwashing device name and color options in the sale message test in order to evaluate target market's response.

Color

Through various times working with plastics manufacturers, such as DuyTan and Tashing, for the mould process, the WaterSHED team also asked them for advice about colors for popular plastics housewares that are widely welcomed by consumers of rural market. The most common answers are red and blue. Since *HappyTap* is targeted to caretakers and their children, the team would like to test more colors to see if there exists any special color trend.

HappyTap was shown mocked up in eight different colors by posters hanging on the wall in every group meeting. The colors were: red, dark blue, blue, green, yellow green, orange, pink and purple. The team estimated that 8 was a sufficient number of options for the audience to pay attention to all at once, and to evaluate their favorites. The evaluation should reveal the consumers' color attraction rather than biased separate picture location in a huge picture arrangement/collection. Each participant was given two bookmark stickers to go to the stage to stick to two most outstanding colors to them. Experience in communication with the consumers before showed that underprivileged women tend to mimic what the crowd do to make sure they are in safe area and not being judged wrong alone. In a meeting of 20 participants, the team wanted to see if the first sticker is on the most popular color that pioneers (thought-leaders) already made, the second sticker would help to point out the true favorite color of the individual.

Of the 128 people participating in the research, blue and yellow green shared the same highest percentage at 16.79%. The third most likable color, attracting 15.65% attendants was green.



“They are all good colors. However, I think blue looks so cool on this prototype. Pink would work for my little child, I believe”

A mother in Hieu Thuan commune, Vung Liem dist, Vinh Long prov.



“Dark blue would help to hide the scratch on the surface in long term use but green definitely brings a fresh feeling.”

Attendant, Tan Binh commune, Binh Tan dist, Vinh Long prov.



Names

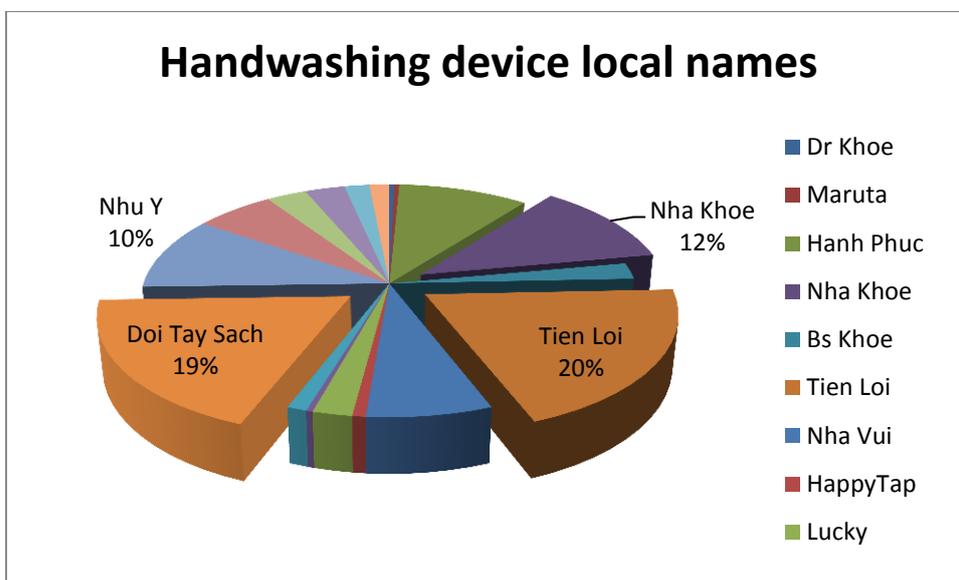
There is little doubt that choosing a meaningful and easy to remember name would be a cheaper and more effective tool to promote viral marketing than any other kinds of communication tools. Especially in Vietnamese rural culture, women have tendency to discuss with their husband and neighbors before they buy a product, so an appropriate name would help a great deal for this process. It explains why WaterSHED made the test to select the favorite names for the handwashing device.

Eighteen names chosen in final list are divided into five main categories: direct-relating to Sales Messages (#1), Primary English (#2), Richness (#3), Sensation (#4), and Image (#5). Group #1 is to emphasize key message in short nouns so that people easily recall when they consider purchasing after a sale event. In many cases, primary English names make consumers feel like the *HappyTap* is a global, high-quality product. Last but not least, though the names may not relate to either physical image or product function, many consumers tend to buy things having meaningful names in terms of luck and wealth meaning range because they believe, once the they get the product in their house, they bring that “luck” and “wealth” into the house too.

#	Name	Meaning	Group
1	<i>Ban Tay Sach</i>	A pair of Clean Hands	Direct-relating to Sales Messages.
2	<i>Tien Loi</i>	Convenience	
3	<i>Dr Khoe</i>	Dr Healthy	
4	<i>Bs Khoe</i>	Dr Healthy	
5	<i>Nha Vui</i>	Happy Family	
6	<i>Nha Khoe</i>	Healthy Family	
7	<i>HappyTap</i>	<i>HappyTap</i>	Primary English names
8	<i>Viettap</i>	Viettap	
9	<i>Lucky</i>	Lucky	
10	<i>Golden</i>	Golden	
11	<i>HappyTap</i>	<i>HappyTap</i>	Richness
12	<i>Phu Quy</i>	Rich and honor	

13	<i>Gia Hung</i>	Upcoming prosperous family	
14	<i>Nhu Y</i>	Satisfaction	Sensation
15	<i>Truong An</i>	Sustainable Peace	
16	<i>Hanh Phuc</i>	Happiness	
17	<i>Maruta</i>	Handwashing device	Image
18	<i>Rong vang</i>	Golden Dragon	

Names were not explained to participants. Similar to color exercise, every attendant was given two bookmark stickers to select the names they have the good feeling to the most. The research result showed that, people liked Tien Loi (Convenience) the most as 20% participants have chosen it. The second most favorite name, taking 19% of the total vote, is Doi Tay Sach (A pair of Clean Hands). Nha Khoe (Healthy Family) and Nhu Y (Satisfaction) are the other preferable, by covering more than 10% of total vote on each of them.



(WaterSHED Vietnam research, 2013)

"I like it [the product] for its convenience so Tien Loi (convenience) would be the first pick. Though you know, Nhu Y (satisfaction) is a beautiful name of all time"
 Attendant in Tan Binh commune, Vung Liem dist, Vinh Long prov.



"I would love to own a Nha Khoe (healthy family) in the house. And, Doi Tay Sach (a pair of Clean Hands) is of course the most appropriate for this device"

Attendant in Tan Thoi village, Binh Tan dist, Vinh Long prov.



The question of how to most effectively test the messages was the subject of extensive consideration amongst the WaterSHED team. Feedback on the handwashing device design and price were collected through three channels: community meetings (#1), focus group discussions (#2) and random household visits (one-to-one interview) (#3). The WaterSHED team did not record the feedback of the audience through willingness-to-pay. The rationale for that was largely based on the following:

- We wanted to test the messages' potential to trigger a buying decision, not their potential to maximize the price that villagers would be willing to pay for a well-established / mature product on the market. Essentially, we wanted to figure out how to tap into an area of motivation that is likely to be less rational and more emotional - and which may be quite removed from the actual practice of handwashing. We wanted to find ways to convince people that the device was, for example, an essential good (i.e. protect family health), or something that they would desire to have and would be proud to showcase (i.e. a fancy product).
- Our understanding that willingness-to-pay is notoriously difficult to capture in a meaningful way and is affected by many uncontrollable factors. Therefore, if we had used a quantitative measure - and one as tricky as WTP - we expect that the research would have been structured quite differently and would have required a much larger sample size, potentially costing much more.

As an example of one fear in using WTP, if we asked people how much they would be willing to spend to have a handwashing solution that makes them feel proud and that looks nice, they might typically assign a low price because a) that feeling is hard to value, and b) it feels vain or self-indulgent to say that you would pay a lot for enhanced pride. Further, if we were to show them the cost of healthcare that might be avoided with a handwashing device, we would expect them to be compelled rationally to offer a higher WTP number. Such a finding might lead WaterSHED to choose the latter message (a value / cost-savings pitch), but we were not convinced that this type of communication would really compel people to go out and take action. We suspect that the latter would be a good way to sell to a corporate procurement specialist, who must choose a service provider or a product based on cost-benefit analysis, but we were skeptical that consumers would make purchase decisions based on pure cost-benefit. The WaterSHED team also wanted to take the focus off of price and let people discuss their reactions to the product openly. Many villagers fear looking 'cheap' by saying that they would only pay a low price, but at the same time they also want

to tell a surveying NGO that they want to pay less in the hope that goods will be subsidized. Many such confounding considerations arise when people talk about price, and we had aimed to avoid them.

- Following the logic above, we looked to the best practice in industry and found that many leading firms that develop communications messages and tools for rural consumer marketing campaigns prefer to use a rapid iterative approach with the following steps:
 - Concept ideation
 - Concept testing
 - Toolkit ideation & content development
 - Pre-testing with audience
 - Revision and production
 - Final delivery, including dissemination guidance / training

Typically the testing phase involves a smaller number of focus-group attendees and respondents than would be expected in a large quantitative survey. Part of the theory is that we can get a lot of really rich data with more in-depth, qualitative research on these abstract motivations than are possible through peoples' own flawed assessments of what they would be to pay.

WaterSHED also realizes that there are sophisticated means by which to avoid many of the stated problems above, especially auction tools to arrive at better estimates of willingness to pay. These may be used in stage 2 of the project if WaterSHED can ensure their usefulness; and potentially as a means to control for selection bias during the evaluation of stage 2.

Also, the WaterSHED team wanted to test if it was possible to change the types of visuals currently used by hygiene awareness campaigns, trainers, and other community facilitators. One assumption was that with the prevailing use of cartoons and illustrations to convey WASH messages in existing campaigns, the audience does not appreciate the raw truth in the message (e.g. dirty hands are dangerous) or the direct, recognizable emotional concepts (e.g. huge daily convenience). We wanted to test prototype messages that stirred emotion – laughter, disgust, shock, etc. – and that could become something that people talk about and discuss with others. Word of mouth is very important in rural Vietnam. Again, few successful advertisers of consumer goods products use animated figures and illustrations as compared to NGO behavior change campaigns.

To avoid a 'crowd effect' or 'group think' - the psychology of biasing the crowd's ideas - random household visits were also conducted with the coordinating support of the Women's Union. By holding a comfortable talk in their house, we found that the family (husbands and wives) were more openly to share their thoughts about the products, without being afraid to be embarrassed about the small budget they might be willing to allocate for *HappyTap*. They were more honest about what they think and their financial ability. One downside of 1-on-1 techniques is that they are expensive in time and resources to conduct.

C. Business Metrics

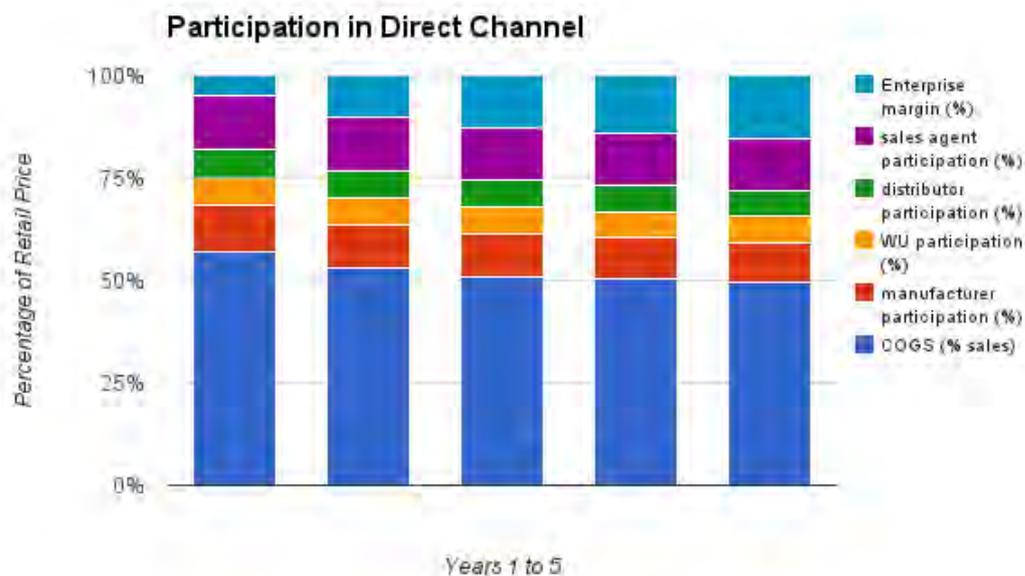
i. Value Chain Participation

(per Handwashing Unit, sales price 149,000 VND = 7.15 USD in Year 1)

WaterSHED estimated the value chain participation - that is, participation in the overall supply chain, not the margins of individual actors. As an example, in the Direct Channel table, the manufacturer participation as a percent of retail sales is 11 percent in year 1, but the manufacturer's margin is roughly 20 percent, calculated as the ex-factory price, less production cost, divided by the production cost.

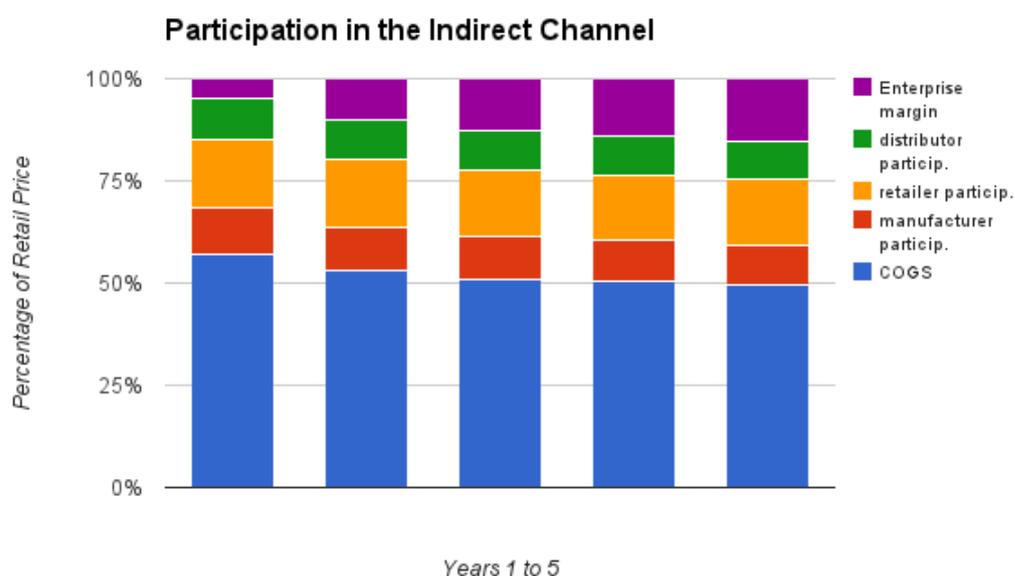
Direct Channel

Projected Participation (as % of sales)	Year 1	Year 2	Year 3	Year 4	Year 5
COGS	57	53	51	50	49
Manufacturer particip.	11	11	10	10	10
WU expenses	7	7	7	6	6
Distributor	7	7	7	6	6
Sales agent	13	13	13	13	13
HappyTap Enterprise	5	10	13	14	15



Indirect Channel

Projected Participation (as % of sales)	Year 1	Year 2	Year 3	Year 4	Year 5
COGS	57	53	51	50	49
manufacturer particip.	11	11	10	10	10
retailer particip.	17	17	16	16	16
distributor particip.	10	10	10	10	10
Enterprise margin	5	10	13	14	15



ii. Projected Operating and Capital Expenses

USD	Year 1	Year 2	Year 3	Year 4	Year 5
Operating Expenses					
Unit volume	53,088	139,852	223,636	244,240	270,980
Production cost (USD)	216,179	537,038	838,419	912,534	1,008,721
Marketing					
promotional leaflet with instructions	5,309	13,985	22,364	24,424	27,098
promotional soap (\$0.30 per bar)	15,926	41,956	67,091	73,272	81,294
national campaign		15,000	15,000	15,000	15,000
schools WASH campaign	25,000	25,000	25,000	25,000	25,000
Marketing subtotal	46,235	95,940	129,454	137,696	148,392
Transportation to Prov. Centre					
Share of deliveries to south	85%	80%	65%	60%	60%
South (\$0.44 per unit)	19,855	49,228	63,960	64,479	71,539
Central & North (\$0.62 per unit)	4,937	17,342	48,529	60,572	67,203
Transportation subtotal	24,792	66,570	112,489	125,051	138,742
Capital Expenditure					
Mold	70,000	0	0	0	0
Depreciation expense (6 years life)	11,667	11,667	11,667	11,667	11,667

iii. Five Year Pro-Forma Income Statement

USD	Year 1	Year 2	Year 3	Year 4	Year 5
Sales					
Direct sales	331,359	809,621	1,134,005	1,038,835	928,446
Indirect sales	26,584	87,341	312,604	512,950	803,298
Export sales	21,439	115,875	194,460	263,909	308,729
Total sales revenue	379,382	1,012,837	1,641,070	1,815,693	2,040,473
Cost of Goods Sold	216,179	537,038	838,419	912,534	1,008,721
Gross Margin	163,203	475,799	802,651	903,159	1,031,752
Marketing expenses	46,235	95,941	129,454	137,696	148,392
Transportation expenses	24,792	66,570	112,489	125,051	138,742
Distributor margin	26,699	68,078	125,197	149,755	187,050
Retailer margin	2,158	7,554	15,108	28,777	37,986
Sales agent margin	44,478	107,235	148,236	134,043	118,273
WU promoter expenses	22,239	53,617	74,118	67,022	59,137
Training costs	20,000	35,000	20,000	5,000	5,000
General and Administrative	1,500	1,500	1,500	1,500	1,500
Operating Expenses	188,101	435,494	626,102	648,844	696,080
EBITDA (operating revenue)	(24,899)	40,306	176,549	254,315	335,672
In-kind partner contribution	60,926	116,956	127,091	118,272	126,294
D&A	(11,667)	(11,667)	(11,667)	(11,667)	(11,667)
EBIT	24,361	145,595	291,973	360,920	450,299
Interest					
Net Income	24,361	145,595	291,973	360,920	450,299
(% of turnover)	6.42%	14.37%	17.79%	19.88%	22.07%

The above business metrics are presented as ‘vertically integrated’ across the value chain actors. The participation breakdown is shown in #1 above.

D. Planned Structure of Social Venture

During this project, the WaterSHED project team identified two options for the future structure of a social venture that would lead the expansion beyond the proof-of-concept (stage 1).

	Model 1: Establish <i>HappyTap Co, Ltd</i>, a Social Enterprise registered in Vietnam	Model 2: WaterSHED as Business Development Service Provider and Market Facilitator
Description	<p>In this proposed structure, <i>HappyTap Co.</i> is a profit-seeking <u>limited company</u> with shareholders, staff, and intellectual property assets (e.g. <i>HappyTap</i> designs). It would be operate as a social enterprise using commercial strategies to achieve a social purpose of providing a convenient and effective handwashing device for households. As a normal enterprise in the market, <i>HappyTap Co.</i>'s focus of activities would be to maximize sales volume and market penetration while ensuring that customers were satisfied with (i.e. consistently used) affordable, durable, and attractive handwashing products.</p> <p>As a social enterprise capitalized by impact investors expected to have longer-term investment horizons (e.g. ~7 years), <i>HappyTap Co.</i> would conduct strategic business planning with a view to a similar timeframe. This approach would be fundamentally different from the usual "project" planning approach associated with grant funding in voluntary and community organizations.</p>	<p>This model would not involve the establishment of a new dedicated social enterprise for the <i>HappyTap</i> product. Rather, it would leverage existing businesses in the consumer plastic goods sector to take on the major roles of production, distribution, and sales. In this model, WaterSHED in Vietnam plays the role of a market <i>Facilitator</i> or <i>Market-Maker</i>, fulfilling many of the duties above of the <i>HappyTap Co.</i> in the short-run.</p> <p>In the long-term plan for this model (similar to model 1), the <i>HappyTap</i> product is expected to be produced and sold sustainably without the involvement of dedicated sales agent. In other words, <i>HappyTap</i> is sold in the market as any other plastic products. However, WU maintains promotional support with assistance from WaterSHED.</p> <p>In model 2, a key difference is that the handwashing device is not branded as "<i>HappyTap</i>", but rather the product is branded as a product of the plastics manufacturer. Or similarly, the "<i>HappyTap</i>" brand belongs to a plastic manufacturer as one of their many product brands. WaterSHED supports the marketing campaign development, training WU members and sales agents, and collecting feedback and monitoring data from customers.</p>

i. Model 1

Revenue Model:

1. Licensing fees from *HappyTap* product manufacturers ~8% of retail price (primary)
2. Sales and marketing support (optional)

Proposed Ownership & Debt-Equity Structure:

As a business primarily focused on achieving a profit while delivering a social good, *HappyTap* Co. Ltd. would be owned by its shareholders – a mix of private investors, including individuals and social impact venture funds. The debt share of the capital structure would be minimal as the assets of *HappyTap* Co. will also be small. As a result, the balance sheet of *HappyTap* Co. will be similar to a consulting organization: largest assets will be intangible such as intellectual property on product design, brand, marketing tools, training program, etc.

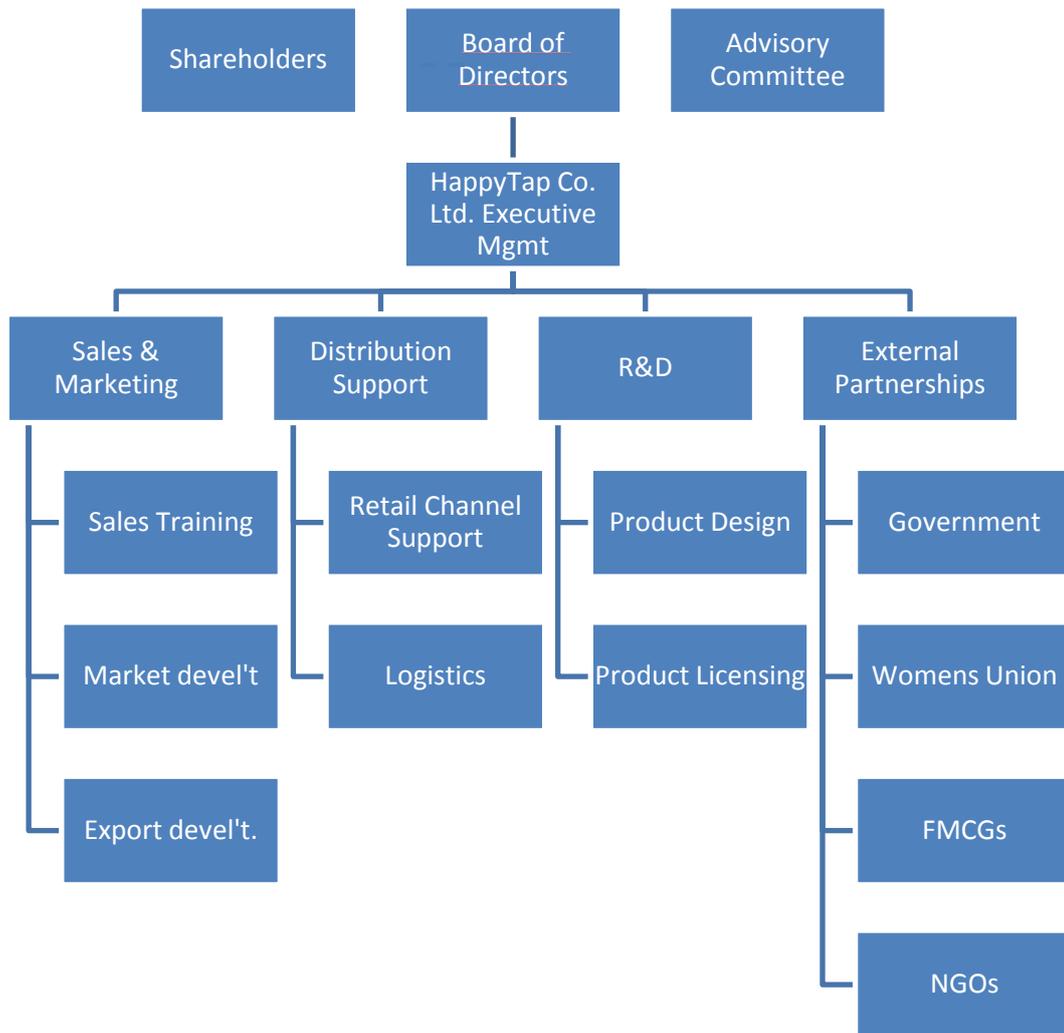
Company Value Proposition (overview):

The corporation will primarily be responsible for *HappyTap* product management, will own and improve the product design and potentially working with manufacturer partners to create premium-end, low-end, and large-format variants (e.g. larger formats for schools). It will develop and coordinate the marketing activities of the many public-sector partners of the project, profiting on the licensing revenue for every *HappyTap* product sold.

In the initial stages, the most important role of *HappyTap* Co. will be to build the sales agents and WU-based promotion network to launch *HappyTap* product in South Vietnam, while at the same time building a foundation for Central and North Vietnam expansion through indirect channels.

Plastic Manufacturers	•HappyTap Co. licenses product design to manufacturers and supports ongoing product refinement and improvements; primary revenue source for HappyTap Co.
Women's Union Promoters	•HappyTap Co. staff provides liaison services between national and provincial level Women's Union; develops improved marketing and promotional campaign tools, and trains WU members.
Distributors, 3rd-party distributors	•HappyTap Co. recruits new distributors and connects and coordinates them with retail and market opportunities
Sales Agents	•During stage 2 expansion, HappyTap Co. staff recruit independent sales agents; train SAs and connect them with WU promoters
Retailers	•HappyTap Co. indirect sales support team will expand the retail network and improve store sales; retail development workshops to learn about point-of-sale marketing tools, in-store sales tactics such as discounting, display, promotions, etc.
Clients	•HappyTap Co. will be the main point of convergence for market data used to generate customer-driven improvements in product design, marketing campaigns, etc. -- business equivalent of 'monitoring' : gathering market intelligence for sustainable growth
Other Partners	•HappyTap will coordinate among government agencies, public partners (e.g. UNICEF, World Bank), corporate allies (e.g. FMCGs), and foreign buyers in order to build long-term (stage 3) expansion opportunities

Model 1: Operational structure of *HappyTap* Co.:



Direct Sales Channel

The company would be responsible for building a direct sales channel whereby each sales agent would serve 2 communes (and each commune has 1 women Union leader); in which group sales meetings (coordinated by Women’s Union) would be organized locally twice per week. The meetings would be consecutive such that the first meeting will introduce the *HappyTap* product and collect orders with deposits from potential clients. The second meeting would invite buyers from the first meeting to collect their product, in view of new potential households attending the group meeting. The Sales Agent and Women’s Union both play very important roles on this model so they need to be trained carefully.

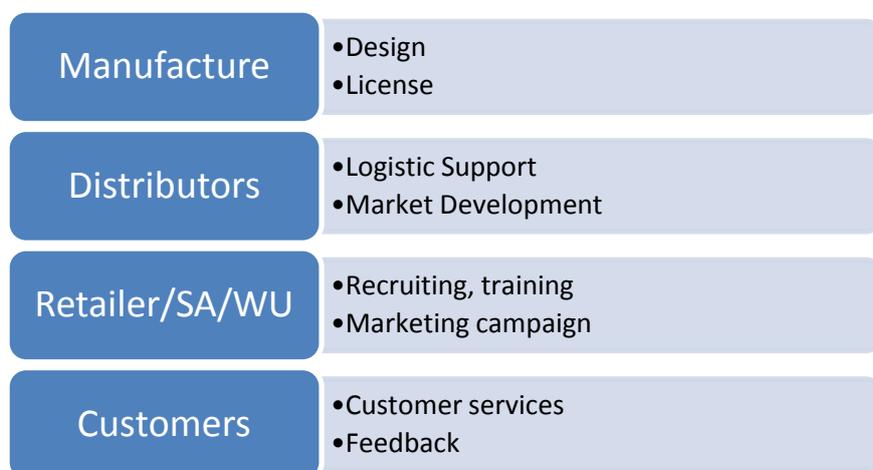


Medium-Term Growth

Following stage 2 expansion and the establishment of *HappyTap Co.*, the product would be managed directly without donor-funding. However, *HappyTap Co.* would seek to leverage relevant NGO- and government-sponsored initiatives, such as behavior change campaigns.

In the long term, *HappyTap* would be expected to run sustainably without the involvement of sales agents. In other words, *HappyTap Co.* would compete in the market as other purveyors of plastic products. However, WU is expected to maintain promotional support and *HappyTap Co.* to provide assistance to WU to conduct this work.

ii. Model 2: WaterSHED's Support in Near Tear of Handwashing Device Sector



Selected Pathway

WaterSHED selected a combination of the pathways to scale (WaterSHED conducting market facilitation, while at the same time putting in place, but not capitalizing, a social enterprise). This pathway was chosen for several key reasons:

Vietnam law restricting the activities of both businesses and NGOs

NGOs in Vietnam are strictly prohibited from carrying out profit-oriented activities that are the normal domain of registered businesses (sole proprietorships, limited partnerships, or corporations). As we understand it, part of the reason is that the government wants to prevent business activities from being shielded inappropriately from tax by operating under an NGO status.

At the same time, businesses are not allowed to conduct NGO-type activities, such as cooperating with government authorities at the local level, working with the Women's Union for promotional support, etc. WaterSHED believes the government (and these quasi-governmental organizations) are concerned about support for-profit endeavours. If they supported commercial ventures, then every company would love to have the Women's Union's support because it would be a hugely effective (and low-cost) way to reach millions of people.

Long-term sustainability (social enterprise)

The overarching goal of the program is to establish a sustainable market without the need for future donor interventions. WaterSHED identified in stage 1 that there is currently no single entity prepared to commit to be a permanent 'OEM' (original equipment manufacturer) of the product at this early stage in its lifecycle. By 'OEM' we refer to a manufacturer owning the design, brand, patent, etc. and continually investing in the former two. It is part of why the intervention by WaterSHED is critical to kick-start the sales. So to own the patent and design, a social enterprise is required -- first as a holding company (no staff or activities) to legally register the patent, and later to be capitalized through private investment and through earned product margin, which will allow it to invest in the brand and the design. This entity is expected to serve a key for the long-run sustainability, and will potentially become an acquisition target for the larger plastic-goods manufacturers.

Employee ownership

With a hybrid structure (in terms of pathways to scale), equity options in the social enterprise can be granted to the Vietnam staff who are working to build the success of the endeavour. In the American start-up context, this is sometimes referred to as sweat-equity: WaterSHED's goal is to recruit an entrepreneurial team - one that would work above and beyond to build a successful and sustainable enterprise and to take pride in the outcome. A compelling way to provide incentive along those lines is to have a portion of the company owned by those who build its value.

Also, since the WaterSHED project will pay staff beyond the life of the project, we hope that the Social Enterprise will generate sufficient free cash flow to hire them at the end of the project and continue expanding the product's market penetration as well as advancing the product design. With this structure, WaterSHED can also strictly maintain a focus on incentives without presenting conflicts of interests - for instance, the USAID DIV funds in stage 2 will not be used to capitalize the Social Enterprise. But the team will still have every reason to make the brand, design, and patent as valuable as possible - which is to say that there is a high unit volume. The company's enterprise value will essentially be negligible if the sales volume is low.