

Project Summary for Research, Development & Commercialisation Team

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Project Summary

Executive Summary

Hidden Hunger aims to address problems of malnutrition within communities in Blantyre, Malawi. The project works in collaboration with Western Sydney University and the African Australian Universities Network with the goal of providing a digital solution to malnutrition.

Background

The Hidden Hunger project began in collaboration with Western Sydney University. WSU has an app (<http://ustawi.scem.westernsydney.edu.au>) which aim to deliver nutrition-driven agriculture which aims to recommend local crops for users to grow to address micronutrient deficiency. This is the goal for the endstate of the application. Currently the app is not tailored towards southern Malawi - ie it does not contain an extensive list of the different foods available in the Blantyre region.

January 2019 was the second month of this project. In December, the HH team conducted surveys of 50 mothers in rural Malawian villages and identified them as the early adopters. From this Malawian mothers were identified as our target customer segment as they were the group most likely to resonate with the issue of malnutrition and take action to improve their circumstances. The December teams secondary focus was on reaching out to organisations in the nutrition space for data, access or advice on nutrition with the goal of expanding the projects network of contacts.

After the identification of mothers as early adopters, the January team decided to conduct offer testing to understand the problem from a household perspective and currency testing to discover if mothers are prepared to invest in a solution. Hidden Hunger has been looking into working with other businesses to identify ways to get to access a larger Malawian customer base.

January '19 Team executed experiments and results

- Offer test - Problem Definition
 - Proposition (<https://projecteverest.crowdicity.com/post/814560>)
 - Results (<https://projecteverest.crowdicity.com/post/834580>)
- Buy/grow comparison Utility Test - Solution
 - Proposition (<https://projecteverest.crowdicity.com/post/814530>)
 - Results (<https://projecteverest.crowdicity.com/post/837470>)
- Customer Segment B2B - in progress
 - Proposition (<https://projecteverest.crowdicity.com/post/847900>)
- Minimum Viable Product Currency Test - Unique Value Proposition
 - Proposition (<https://projecteverest.crowdicity.com/post/882870>)

January '19 Team proposed but unexecuted experiments (suggested to undertake in February)

- Different forms of Currency Testing
 - Paper data collection with follow up meeting
(<https://projecteverest.crowdicity.com/post/846960>)
 - Advertised single clinic with immediate & basic product/currency exchange
(<https://projecteverest.crowdicity.com/post/847770>)
 - Long-term software based currency test
(<https://projecteverest.crowdicity.com/post/858890>)

January '19 Team Black Label

- Problem Definition Black Label (<https://projecteverest.crowdicity.com/post/838940>)

Activities that allowed us to execute experiments

1. **Customer Segment B** - stakeholder analysis (WISHLOADs); phone calls and emails; meetings with prepared agendas. Constant update of hubspot.
2. **Problem Definition** - survey creation, testing and reiteration; survey execution; data collation and analysis.
3. **Unique Value Proposition** - product creation and exchange for currency.

The Problem

A number of problems affecting mothers with young children were identified over the past 2 months. These problems were compiled to build the following 3 PCM's (problem centric messages) which were used during preliminary offer testing:

- **1) Lack of information on nutrition and malnutrition**
 - Lack of information on what foods contain which nutrients
 - Lack of information/knowledge on how to grow a diverse range of crops
 - Lack of information about the symptoms and long term effects of malnutrition
 - Lack of knowledge on what foods are needed to keep their family healthy.
- **2) Lack of access to nutritious foods**
 - Lack of access to foods due to seasonality
 - Lack of access to diverse foods in markets
 - Lack of access to land for mothers to grow crops on Lack of access to resources that are required for farming (irrigation, seeds) Lack of money to pay for nutritious diet. Income is prioritized towards daily running costs, rent, etc., not necessarily a nutritious diet or long-term budgeting
- **3) Lack of finances to pay for food and resources to grow foods**

These three main points are the the major problems identified by rural mothers based on Decembers survey of 50 mothers and January's offer test of 39 mothers met at under 5 clinics. These experiments validate that the issues identified by the January team are an accurate representation of the reality of the situation for rural mothers and allow the hidden hunger team advance into currency testing to see the value placed on a solution to the problem.

See Offer test results on crowdicity for further details

(<https://projecteverest.crowdacity.com/post/834580>)

Proposed Solution(s)

Out of the 37 offer tests conducted, 71.1% of mothers surveyed expressed an interest in a potential solution to issues in the nutrition space. This appears dependent on the tradeoff between income and other daily costs:

- 74.3% of mothers wanted information about healthy foods
- 66.7% of mothers wanted better access to healthy foods
- 37% of mothers want cheaper ways to consume food.
- 33.7% of mothers want to learn which healthy foods are good to grow.
- 11.1% of mothers want to learn how to grow healthy foods

Solutions that have been considered:

- WSU's Hidden Hunger phone application. This app is currently being used in South Africa and a similar app in India for smallholder farmers. The app is untested in Malawi. ***NB***
When testing the application in the field - ensure that a region for which data has been collected is being used - ie Central Malawi.
- A paper based solution
- USSD based solution
- Partnership with business to develop group delivery based solution (ie partnering with other social Enterprises NGO's or charities to expand reach and use the application to offer a consulting service around better nutritional practises in rural Malawi.
(Steps required to test the solution are outlined in 'Critical Future Actions.)

Key issues to implementation for WSU's app:

- 1) **Connection:** A digital version is a challenge as majority of those surveyed don't have smartphones. Looking at December's survey of 50 mothers. 60% owned a brick phone, 16% owned a smartphone, 20% had access to a brick phone, 0% had access to a smartphone and 4% had access to neither.
Overcome - Use paper based MVP (minimum viable product to prove concept while collaborating with WSU for end product.)
- 2) **Trust:** It is assumed that people aren't as likely to purchase an item if they do not know or trust the company selling it.
Overcome - Invest in empathizing and building rapport before diving into surveying or sales pitch.
- 3) **Payment:** Many people do not have the finance to pay for the app or the foods that it recommends.
Overcome: Stress long term financial benefits of smarter nutritional practises and opportunity it creates for further economic empowerment in the long run.
- 4) **Access to land:** Some people don't have the land to grow the different crops for nutritional purposes because they are renting.
Overcome - Include functionality around buying in addition to growing new crops.

- 5) **Glitches:** The app currently has an issue with nutritional recommendations within the Southern Region of Malawi but yields better results from other regions/countries.

Overcome - Select regions for which the app has more functionality (Central Malawi), document shortcomings of the app with verbatim from field stakeholders and create action plan for WSU.

Alternative Solutions

- Adaptation of USTAWI App to USSD function.
- Adaption of USTAWI App to a paper based brochure to allow it to be more accessible incase people don't have phones or much electricity
- Adaption of USTAWI App to a class to teach people the information in it and practice this information (or potential brochure providing the same service.)

Suggestions for Improved USTAWI App

- Serving/cooking suggestions
- Sanitation and hygiene suggestions
- Information on exact nutrients missing and attained in diet survey
- Inclusion of common crops in Malawi
- Inclusion of nutrients in each crop and implications of missing certain nutrients
- Information of short and long term effects when lacking certain nutrients
- Inclusion of average price of recommended crops
- Information on how to grow different crops
- Inclusion of recommended crops to grow in the area

Stakeholders

During the month of January, the hidden hunger team has communicated to and met with a variety of different stakeholders. To continue with this progress its vital that the february month and later months keep contact with these stakeholders and plan future meetings.

Stakeholders contacted by January Team

Story Workshop

Story workshop Malawi are a NGO based out of Blantyre aiming to tackle social issues like Malaria, AIDS and malnutrition through the use of media and communication. They enter rural communities and educate their audience through the use of shows, dance and drama to highlight these issues and improve knowledge on how to tackle them,

A meeting was held midway through January where Story Workshop explained the methods they used to get into contact with local communities. They also shared a list of potential stakeholders to set meetings with which is available in Workhub email.

Story Workshop suggested to make contact with dept of nutrition who would in turn advise on how to best contact the desired stakeholders to bring our project forward.

Summary of previous interactions

- Sent emails to get into contact with them
- Met on 14.01.19

Outcomes

- Gained insight into how they make contact with Village stakeholder
- Suggested that we contact dept of Nutrition to coordinate our engagement efforts with communities

Actions on

- Agreed to follow up meeting when our service offering was further developed detail on type of engagement with customers.
- Preparation for presentation of the application
- Full meeting agenda found [here](#)

Goal Malawi

Goal Malawi are an NGO that conduct 12 week projects in selected rural communities focused on infrastructure, healthcare, nutrition, foods security and other social initiatives to boost the quality of life in rural Malawi. They are currently interested in our application as they believe it could be used as a means to track progress and keep communities accountable in maintaining a behavioural change in relation to their diets after their initial contact finishes.

Summary of previous interactions

- Contacted to set up a meeting on the 16.01.19

Outcomes

- The director of nutrition needed to consult the director of malawi before further progress
- Seemed interested in collaboration

Actions on

- Organise a second meeting/presentation
- Prepare for the presentation of the product
- Full meeting agenda to be found [here](#)

Project Peanut Butter

Project Peanut butter are a charity located 300M from GHQ. They operate by visiting clinics across Blantyre and the surrounding areas and supplying nutrient dense peanut butter to malnourished children. They also assess and monitor conditions of malnutrition to be found there. There is a lot of scope for potential collaboration as they tackle the issue in the short term but could likely be seeking a longer term solution to augment and complement their existing offering.

Summary of previous interactions

- Door knocked and spoke to receptionist Alima. Told us she would organise a meeting with the nutrition field team next week. Never confirmed a meeting despite follow up. Recommend door knocking again (Project PB HQ is around 200M from GHQ.

Outcomes:

- Established a connection and received contact details

Actions on

- Follow up with meeting and pitch to create partnership
- Visit HQ and door knock again
- Request opportunity to join them on a clinic visit or more context of nutrition problem.

Pedro Kubwalo

Pedro is associated with the UNICEF Polytech Innovation Hub and has displayed an eagerness to work with Hidden Hunger. Since he is very experienced with coding and USSD functionalities, he is an asset that can allow us to progress our USSD application if needed. His intimate knowledge of Malawi and coding will allow for us to easily translate the requirements needed in the app to WSU and provide clear directions to them for a product that exactly what is needed.

Summary of previous interactions

- Was a stakeholder from FarmEd and Solar consulting previously
- Had a meeting on the 22.01.19

Outcomes

- Agreed to more contact in especially while working on solution and utility testing

Actions on

- Set up a meeting to talk more specifically about solution/utility testing
- Keep contact and keep Pedro informed on where the projects at and the direction in where it is heading
- Full meeting agenda can be found [here](#).

Dr Stewart Chipendo

Dr Chipendo general practitioner currently is the owner and managing of a local clinic in Blantyre, Malawi (located next to Veg Delight). He has almost 30 years experience working in his field, has worked in Australia for 7 years and has many contacts in Malawi within the Health and Nutrition scope. He is very enthusiastic about the Hidden Hunger project and is currently a link between PEV and potential nutritional consultants and important future stakeholders.

Summary of previous interactions

- Met with him briefly, not previously aware of PEV and projects

Outcomes

- Gave PEV a list of potential contacts

Actions on

- Follow up with him to ensure he provides a list of the stakeholders promised. Use these contacts and take top down approach to building professional take

See Meeting agenda and Meeting minutes on google drive for more information

(<https://drive.google.com/drive/u/1/folders/11bgDU6k1PErifVw91HzzZsqHS-7-t9kC>)

See hubspot contacts to see the extended communication between the stakeholders and Project Everest

Stakeholders contacted in January

The January team contacted many stakeholders that either did not respond or are planning to set up a meeting

- Save the Children
- World Food Program
- Scaling Up Nutrition
- ADRA

Actions on

- 1) Follow up phone call
- 2) Door knock

Backing Data

Primary

Offer testing data: 190109 Offer Test - Hidden Hunger Survey (Responses)

<https://docs.google.com/spreadsheets/d/1TtYn6txftwllibasHlMyFnxdA6O-EFsGbQ6G7h2k43o/edit#gid=1873874659>

Survey raw data: 181130 Survey Collation 01 EB/LE/RP

https://docs.google.com/spreadsheets/d/1nNmp65wQp9G12nfErE7mixO7Qg3sKNaZckVIYFW76Yo/edit?usp=drive_web&ouid=114999166797412336385

Currency test data (continuation of experiment recommended:

<https://docs.google.com/spreadsheets/d/1dYmBddlWNmVx3vyMA8h9tUv7nCOqwajolQEbDi1LyQl/edit#gid=0>

Currency MVP Samples:

<https://docs.google.com/document/d/1cluNtDpm1lEC1uV1oAff0kNXChDPlaD3sU22HALIdLA/edit>

Secondary

Of the 2.9 million children under five, less than 142,000 are acutely malnourished, while 1.2 million of them chronically malnourished. This is 42.4% of the under-5 population. This has worsened since 2015 due to unstable food security. (National Statistical Office 2014).

As adults, this reduced development leads to limited productivity and performance in daily responsibilities such as cooking, cleaning, working, and selling markets. Pregnant women have a higher mortality rate along with a higher chance for prenatal complications. 50,000 die during childbirth due to severe anemia, a condition caused by a deficiency of iron (WSU Ustawi).

A University of Pretoria study found that when a household farms and grows their own crops for consumption everyday, the diversity of their diet increases and improves.

Critical Future Actions

The January 2019 team have planned out possible experiments for the February team to execute throughout the month

1. Short term currency test experiment <https://projecteverest.crowdacity.com/post/882870>
2. Initiate the long term currency test experiment
<https://projecteverest.crowdacity.com/post/858890>
3. Utility testing - Smartphone vs USSD based solution experiment (utility test)

Experiments 1 and 2 follow the Lean process as they are a basic currency test and a currency test more similar to a potential final sales process. Experiment 3 is to test and inform on the preferred functionality and type of solution that is wanted most by mothers in Malawi.

Risks

- **Reputation:** Repeatedly surveying participants who have engaged with us in the past could affect PEV's reputation in the region.
- **Reputation:** Invoking a false sense of an immediate solution to malnutrition or aid regarding food. I.e set expectation that we will not be providing actual food.
- **Reputation:** Affecting PEV's image and reputation due to incorrect translation or communication.
- **Blantyre District Health Organisation (DHO):** This organisation is a critical stakeholder for the Health project and any communication with them must be carefully considered and consulted with the group leader. Make sure to look at communications on Hubspot with Chifundo Chitete and look at this document:
<https://docs.google.com/document/d/1pZ5FThxB8iPQ3pWUoS1-Bxhyf66l-IsCaGRuIFCJp/edit>
- **Expectation setting** - When dealing with sensitive issues such as Malnutrition, communication is so key to building strong relationships and ensuring that the people we engage with understand the offering we are trying to provide. For example when conducting initial currency testing, one villager asked the team if they would be providing free food. It is critical that we set expectations of what we will and will not be offering in future to mitigate any misalignment when carrying out follow up engagements.

Next Teams Goals

- Currency test: 50% or more of mothers would pay for a solution.
- Customer segment B: Set up more meetings with different businesses and extend on the relationships built with the businesses PEV have already made contact with. Looking for the potential for collaboration and knowledge and data sharing
- Utility test: 70% of people decide that a tech based solution would be preferred over a paper based solution with a minimum of 30 people interviewed
- False door test: More people send an expression of interest to the USSD based ad than the Smartphone ad

Other Useful Documents

- Key stakeholder contact list:
https://docs.google.com/spreadsheets/d/1MG1-nfU-GN4vD7pw5v9EH-teqnECuZ_F-ivEtpWKcQE/edit?pli=1#gid=0
- Contacts/stakeholders. WISHLOADs were used to analyse stakeholders and meeting agendas are also found here:
<https://drive.google.com/drive/folders/11bgDU6k1PErifVw91HzzZsqHS-7-t9kC>
- Potential utility test information:
<https://docs.google.com/document/d/1VoshkpN78P2hci-iUBc0rTsmVrxmwuAmRneF0n8gtjc/edit>

Instructions: make a copy of relevant files so you don't have to build new ones.

APPENDIX

Key Stakeholders

- NAYO: Contacted recurrently for translators
- Western Sydney University: As they are aiming to build the solution for the Hidden Hunger group, they are a major stakeholder and will be need to be kept informed of the activities of each month.
- Blantyre District Health Organisation (DHO): Potential stakeholder in the future but the project must be careful in all communications with this organisation. They are a critical stakeholder for the Health project and poor communications with them could cause major problems for the Health project. Consult health team before going to meetings and contacts to ensure no confusion.

Translators

- Duncan: Met at Limbe Market, looking for an internship with PEV. He has a good sense of English to Chichewa. 088 818 1493
- Thomas: Good work ethic, friend of Duncan's. Make sure to discuss payment before any work. 088 897 5070

- Mike The Fishmonger: Proficient in English and vibes well with other locals. Met at Limbe Market. 088 823 5036
- Would recommend using Field guides or University Interns before contacting these stakeholders as they were often difficult to work with and requested overly expensive payment.

For more information on contacts use:

- i. *HUBSPOT - provides context on stakeholders and history of interactions. Important to preserve continuity in PEV's engagement with stakeholders*
- ii. <http://bit.ly/2RdgJ5u>

Decembers experiments

December '18 Team executed on three experiments

- 1) Customer segment A (CSA): <https://projecteverest.crowdicity.com/post/637720>
- 2) Customer segment B (CSB): <https://projecteverest.crowdicity.com/post/637760>
- 3) Problem definition (PD): <https://projecteverest.crowdicity.com/post/637820>

December '18 work results, updates and black labels

- 1) Customer segment A (CSA) results: <https://projecteverest.crowdicity.com/post/792740>
- 2) Customer segment A black label: <https://projecteverest.crowdicity.com/post/797840>
- 3) Customer segment B (CSB) update: <https://projecteverest.crowdicity.com/post/792970>
- 4) Problem definition (PD) results: <https://projecteverest.crowdicity.com/post/792950>

Project-specific and technical theory/processes

USTAWI APPLICATION

- 1) Download application from WSU portal on android smartphone.
- 2) Create arbitrary accounts for each user (they do not require functioning email addresses or contact details.)
- 3) Select a region for which comprehensive amounts of data has previously been collected - Central Malawi, Western Cape, SA for example.

Additional future action avenues

Currently the B2B stream and direct end customer engagement are the only 2 avenues the Hidden Hunger team envision this project going down. There will be significant overlap between both of these areas of action throughout the month, particularly in relation to the long term “usage” currency test that has been designed specifically to be executed in collaboration with Partner organisations in the nutrition space.