Investigating a Social Entrepreneurial Business Model in India and its Applicability to Wider Contexts

Jasmine Hammam
ABSTRACT

Social entrepreneurship has grown in popularity since Muhammad Yunus and Grameen Bank was awarded the Nobel Peace Prize in the year 2006. Pollinate Energy is an Australian social business working to improve the lives of the urban poor in India. The purpose of this study is to investigate the portability of the organisation’s business model to other geographical locations, e.g. what adjustments might be needed if transferring and implementing the concept in new cities and locations. A qualitative case study approach was conducted by gathering experiences from Bangalore through interviews and secondary sources and field observations from a field study conducted in Hyderabad, India.

The results indicate that the local cultural context shapes the structure of the concept. It was found to be easier to establish relationships through products with immediate tangible benefits, which indicates that products are highly context dependent. Therefore, local trials of products are needed for the concept to be effective. Moreover, further investigations of the model would be required if the concept were to be transferred to other geographical locations. The model can generate spin-off effects contributing to development, and can thus be a catalyst for social change.

Keywords: Social entrepreneurship, urban slums, portability, cultural context, India.

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1. INTRODUCTION

Adjacent to India’s recently developed economic hot spots such as IT parks, airports and affluent apartment complexes, people live in pockets of urban slum. These ‘communities’ often consist of primitive make shift structures built primarily with spill-over material from construction sites but sometimes amounts to not much more than a collection of simple plastic sheet tents. The slums are typically populated by people from rural villages that have migrated to the city to find work in the urban area, and often lack access to electricity, gas stoves, filtered water and basic sanitation (UPRS, n.d).

Pollinate Energy is an Australian based non-government organisation with the stated mission to improve the lives of India’s urban poor (Pollinate Energy, 2015a). Pollinate Energy applies a micro-financing model, referred to as the Pollinator Model, supplying the communities with basic products and services through a network of locally employed entrepreneurs, referred to as Pollinators (Kayne, 2013). The Pollinators are door-to-door salespeople who travel between communities to sell and service products supplied by the organisation.

Pollinate Energy describes itself as a social business, meaning the organisation operates as a business but with a social impact at its core. This phenomenon is popularly described as social entrepreneurship, where organizations combine “the resourcefulness of traditional entrepreneurship with a mission to change society” (Ceelos & Mair, 2005, p.241). The concept of social entrepreneurship based on systematic micro-financing came to public attention when Muhammad Yunus and Grameen Bank were awarded the Nobel Peace Prize in the year 2006 (Mook et al. 2012). It has been noted that even if technology and social innovation cannot alone solve India’s poverty related issues, social entrepreneurship could fill a void where government and charity efforts currently fall short (Kayne, 2013).

The organisation has looked into franchising opportunities in the Philippines, hoping that the “model will be replicable to urban centres beyond India” (Behal, 2015). Although the organisation has an easily understood and purposeful model, Pollinate Energy has faced a number of challenges as a foreign body introducing new concepts of distribution in a foreign environment. In an interview with the newspaper Asian Age, this is how one of the founders expressed her views of the organization's biggest challenges (Ali, 2015):

Our biggest challenge at the moment is learning how to make this work — transferring what has been successful in Bengaluru [Bangalore] to these other cities and also learning what we need to change.

Understanding differences and local know-how is useful in order to operate successfully in different parts of a country like India, which is rich in diversity both within and between regions. Through a qualitative case study, experiences from Bangalore and Hyderabad are compared, investigating if there are location-bound specifics regarding cultural and social aspects that need to be taken into account when transferring the Pollinator model to other geographical locations.
2. PURPOSE AND SCOPE

The study concerns a case study of a social entrepreneurial business in India, Pollinate Energy. Observations of the work of Pollinate Energy and the impact of this social business were conducted in a field study. In addition, the study includes an investigation of the model’s applicability to other geographical and cultural settings. Geographical and cultural variations that have influenced Pollinate Energy’s business and the internal structures and relationships of the business model are of particular interest. The following research questions will be addressed:

- How has the local context influenced the Pollinator models in Bangalore and Hyderabad?
- What criteria are important when selecting suitable Pollinators with regards to e.g. socio-economic belonging, social background and gender?
- What characterizes products that customers prioritize and how can meaningful products be selected?

The study looks at two South Indian cities, Bangalore and Hyderabad. The study is based on interviews conducted with participants from previous fellowship programs organized in Bangalore and my own fieldwork in Hyderabad. Bangalore was used as a reference point, where previous experiences were used to compare similarities and differences to Hyderabad. The information about the fieldwork in Bangalore was obtained from interviews and secondary sources. Based on observations, interviews and analysis, the aim of the study was to identify generally valid conclusions and highlight important findings to bear in mind if the model is transferred to other geographical locations.

3. THE PROJECT DIVISION

The study was divided into three different parts, which are presented below.

(i) Pre-Field Work
This initial part consisted of a literature review, developing the purpose and scope of the study and investigating suitable theoretical and methodological tools. Skype interviews were conducted with participants (so-called fellows) from previous fellowship programs held in Bangalore as part of the background research. The purpose of the interviews was to become familiar with the landscape Pollinate Energy works in, but also get to know more about the fellowship programs, the products and understand what challenges Pollinate Energy faces as a foreign-based organisation working in India. The benefit with the Skype interviews was that it gave the opportunity to identify recurring issues and barriers before heading down to India. This was beneficial both regarding choosing suitable analytical tools for the field study, what challenges to expect, but also to personally be more prepared of what to expect while conducting the fieldwork in India, especially when working in the slums. During the fellowship in December
2014, the fellows focused on both the promotion of a new water filter product, but also investigating what challenges could be faced when expanding the organisation to Hyderabad. Thus, the Skype interviews also generated some insights of the importance of regional differences in India and how the Pollinate approach must be adapted to the regional context and customs.

(ii) Field Work in India
The second part of the study consisted of fieldwork conducted in the city of Hyderabad, which largely consisted of participating in the fellowship program held in July 2015. The benefit of joining the program was that it lent itself well for reaching out to the targeted interviewee groups: Pollinate Energy staff, Pollinators, fellows, customers. The fellowship schedule allowed daily contacts with the slum communities, allowing plenty of time for interviews and observations on the ground, gaining insights into customers’ daily lives and routines. This exposure to the local context and culture was crucial in order to investigate its influence on the Pollinator model. Participating in the fellowship program enabled gathering empirical material from the field. However, staying on with the organisation for two more weeks after the program involved benefits such as spending more time in the communities and also to get in touch with Pollinate Energy staff for any additional questions or material; as this second part was mainly allocated to processing, reflecting and analysing the collected material.

(iii) Post-Field Work
The last part of the study consisted of a finalizing process, which took place in Sweden, in order to allow time for a deeper reflection of the findings made in India.

4. THEORETICAL FRAMEWORK

This chapter presents the theories applied in the study, which were used to interpret and analyse the empirical material. In order to investigate the influence of the geographical region, theoretical aspects of place were applied. Intersectionality theory was exercised to investigate socially and culturally related factors and investigating relationships and different power structures taking place within the Pollinate Energy Network. Lastly, theory from anthropology was utilized in order to investigate how the local context influences the choices and responses of product segments.

4.1 Place
According to Holloway and Hubbard (2001, p.7) our everyday existence is “an extraordinary set of relationships between people and places”. People and places derive their identities from each other, meaning that these relationships are not fixed, but under a constant changing process. Thus, they cannot be studied independently of each other, as the rationality between the two is essential for the geographical understanding. The relationship between people and places varies
depending on peoples’ understanding of the set of rules, occurrences and boundaries taking place (ibid). Moreover, the individual’s perceptions of the physical characteristics of a place and the relationship between artefacts and people affect the individual’s behaviour in place (ibid). The importance of this notion is supported by Anderson (2009, s. 270) emphasizing that “a culturally geographical approach to place investigates the relationships between people and places”, where the researchers task is to “analyse and interrogate all the agents, activities, ideas and contexts that combine together to leave traces in places”.

The relationships between people and places can be divided into different levels of scale, i.e. global, national, regional and local. The connections between different localities and nations have intensified due to the development of globalization, which has changed the nature of relations between places and people (Holloway and Hubbard, 2001). Although a global perspective is frequently applied within the academia and in the social debate, Holloway and Hubbard (2001) emphasize the importance of taking local perspectives of people movements and behaviours into consideration, claiming that it is not sufficient for explaining the fundamentally important role of place in shaping people's routine and everyday lives.

Agnew (1987) defines three dimension of place: location, locale and a sense of place, which are defined in figure 1. The dimensions stretch from a macro to a micro perspective. In the study, the location aspect is applied by focusing on analysing the city context, which involves the urbanisation process and the phenomenon of economic migrants coming into the city. The locale aspect is utilized for describing the setting where people conduct daily life in the domestic environment where social interaction which takes place through activities such as socializing, working and studying in the communities and the organisations headquarter. The sense of place aspect is applied to analyse the atmosphere in the communities. It is also complemented by Doreen Massey’s definition of place as a network of social relations, which is in line with Holloway and Hubbards (2001) notion that places are not fixed but continuously changing. As places are filled with internal conflicts, the specificity of place is continually reproduced and what gives a place its specificity is the particular constellation of social relations (Massey, 1994).

<table>
<thead>
<tr>
<th>Three Dimensions of Place</th>
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<tbody>
<tr>
<td><strong>Location</strong></td>
</tr>
<tr>
<td>The geographical area encompassing the settings for social interaction as defined by social and economic processes operating at a wider scale</td>
</tr>
<tr>
<td><strong>Locale</strong></td>
</tr>
<tr>
<td>The settings in which social relations are constituted (these can be informal institutional)</td>
</tr>
<tr>
<td><strong>Sense of place</strong></td>
</tr>
<tr>
<td>A local structure of feeling which is taken to embrace the affective attachment that people have to a place</td>
</tr>
</tbody>
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*Figure 1. Agnew’s three dimensions of place are listed in the table (Agnew, 1987).*
Massey has further developed *a global sense of place*, which is an increased result of globalization. The concept is built on interrelatedness between the local and global, which respectively is a distinct mixture of wider and local social relations. (Massey, 1991:1994) This perspective is applicable as Pollinate Energy connects the local Indian communities and the Western world through the organisation’s programs and are applied to analyse the broader urbanisation process where foreign investments leads to development and city expansions.

4.2 Intersectionality

In short, intersectionality involves analysis of distribution of power and resources in societies (Scott, 2014). Intersectionality is a theoretical tool to analyse social structures within a society from a multidimensional perspective, which covers discrimination aspects concerning different forms of identity, such as social background, gender, ethnicity, sexuality etc. (Castree et al. 2013). It is a broad approach applicable in nearly all social contexts, shifting focus between identities, categories of difference (the aspects mentioned in the previous sentence) or systems of domination (e.g. sexism, patriarchy, colonialism) (Scott, 2014). Apart from covering matters of social inequalities, intersectionality analysis also includes aspects of dynamics of power, which affect and are affected by these types of inequalities (Scott, 2014). Thus this perspective allows an investigation of how power and inequality is embedded in different identity categories.

An approach within the intersectionality field is called inter-categorial. According to Grabham (2009, p.59) the inter-categorical approach acknowledges that there exist relationships of inequality between constituted social groups and categories are used in order to interpret these relationships and how they are changing. Focus lies on investigating how the intersection of relationships influences social behaviors or the distribution of resources (Scott, 2014). A note to highlight is that meanings of social power structures vary between people of intersectionally different group belonging (Scott, 2014).

Intersectionality is in some aspects similar to stratification theory in the field of sociology, which studies systematic and structured inequalities within social divisions. In comparison to social stratification, recent work by Anthias, Yuval-Davis and suggests that an intersectionality approach is a favourable approach as it does not “reduce the complexity of power constructions into a single social division as has often been the case in stratification theories” (Scott, 2014).

4.3 Culture and Decision-making

In order to analyse human motives, the social-temporal grid developed by the anthropologist Richard Wilk was applied. The model serves as a framework for understanding decision-making, where a fundamental notion is that human nature can be rational but at different scales and in different contexts: what makes sense in one culture might not be perceived as a rational decision by another (Wilk and Cliggett, 2007). Traditionally motives for human decisions are categorized into social, moral and selfish goals, where the social-temporal grid includes these components in a larger socially bound context.
The graph begins with the individual’s self-interests and moves towards altruism further out on the grid. Motives are interpreted as continuous variables instead of types of behaviour or people. The vertical axis in the grid is a time scale, where self-interests stretch from immediate satisfaction to distant long-term self-interests, where altruism is considered as decisions motivated by long-term interests. The time scale is beyond the individual life span as beliefs in an afterlife or reincarnation influences people’s decisions in life. Choices that are motivated by aspects beyond the individual life span are deemed as inherently cultural, as culture will still exist after the individual has passed (Wilk & Cliggett, 2007). The horizontal axis is the social dimension of choice and acknowledges that the individual takes other people’s well-being into consideration when making decisions. The social scale refers to the size of the group that is taken into account and a notion is that the individual is constantly encouraged by different social groups to prioritize the good of the group before the individual (Wilk and Cliggett, 2007). The time scale starts with the individual and moves onto friendships, family and larger groups such as communities, nations etc. The grid can be used to analyse conflicts addressing whether the interests of the individual or the group that should be prioritized when making decisions.

5. METHODOLOGY

Interviews and field observations were applied as they were considered the most natural way to investigate social structures and cultural factors, as the study focused on social relations and the individual’s interpretation of it’s social reality.

Figure 2. The social-temporal grid can be used to map different kinds of decision-making.

Figure 3. A schematic diagram presenting the different methods applied in the study.
5.1 A Qualitative Case Study Approach
While a quantitative research approach focused on the researcher's ideas of what dimensions and categories should be central to investigate, a qualitative approach is interested in the study objects perspectives (Alvesson & Sköldberg, 2008, s.17). The last one was deemed suitable for the study due to the fact that the method focuses on investigating abstract and unmeasurable phenomena. A qualitative approach is based on a constructivist paradigm, claiming that truth is relative and depends on one’s perspective (Yin, 2003). Reality is socially constructed through individuals’ interactions with the world, allowing multiple constructions and interpretations as reality can be perceived differently between individuals (Merriam, 2014). Two strengths with the qualitative approach are the ability to probe for underlying value, beliefs and assumptions and to design a broad open-ended inquiry, allowing participants to raise issue they consider to be of importance (Yauch & Steudel, 2003). Hence the researcher is not limited to a finite set of issues, as important issues to investigate may come to light along the way (ibid). It was considered to be difficult to investigate these areas with quantitative methods but also for a number of practical reasons. A large number of responses would be needed in order to collect reliable data and the fact that multiple languages spoken are in India and the literacy levels were uncertain, it was deemed that a questionnaire probably would have increased the likelihood of misunderstandings and generated skewed results.

The fact that individual interpretations tend to change over time promotes case studies as a suitable methodological approach in qualitative research (Bryman & Nilsson, 2011) where the researcher is interested in understanding interpretations in a particular context at a particular point in time (Merriam, 2014). Case studies allow the researcher to explore and describe a phenomenon, as well as explore individuals, organizations and communities (Yin, 2003). According to Baxter and Jack (2008, p. 545):

A case study design should be considered when:
(a) the focus of the study is to answer “how” and “why” questions
(b) you cannot manipulate the behaviour of those involved in the study
(c) you want to cover contextual conditions because you believe they are relevant to the phenomenon under study or
(d) the boundaries are not clear between the phenomenon and context.

As all the components were relevant for the aim of the study, it motivated applying this approach. Moreover, a qualitative case study approach facilitates exploration of a phenomenon through a variety of lenses allowing a multi faceted research approach (Yach & Steudel, 2003).

5.2 An Inductive Approach, Critical Realism and Reflexivity Elements
When using an inductive approach, theories are generated by asserting a general correlation or relationship from a number of observations, allowing an iterative research process of going back and forth between data and theory (Bryman & Nilsson, 2011). Critical realism was applied when
analysing the collected material, which encompasses the notion that the researcher’s interpretation is only one of multiple interpretations. Critical realists welcome the use to theoretical definitions and mechanisms, describing abstract structures but visible effects in society (ibid). Alvesson and Sköldberg (2008) claims that the key to achieving social change is to understand these social structures.

The interpretations of the interview material and observations are coloured by my own perception and also my personal interaction with the different interviewees and observed participants. By applying a reflexivity perspective, the researcher is encouraged to question the premises of the researcher’s activities, such as the use of analysis, observation and language, but also to critically reflect on the how personal interactions with the study objects can influence the results (Alvesson & Sköldberg, 2008). Shurmer-Smith (2002, p.141) argues for the importance of remaining reflexive and critical while conduction ethnographic fieldwork, explaining that:

Because of the influence that the researcher has on her fieldwork, it is important s/he is reflexive and aware of herself (and her behaviour) and the ways in which s/he influences her study. Our relationships with the people we research, how we write through the research and what we write push us to confront issues of ethics and to question both ourselves and the research.

Being a participant of the fellowship program called for a reflexive approach, as the researcher was part of the study object. Connecting this line of thought to the constructivist perspective it is important to highlight that different results might have been generated if another researcher had conducted the study.

5.3. Potentially Influencing Factors
Both within intersectionality theory and methodology approaches it is emphasized that the researchers background, behaviour and interpretations have an influence on the results. Examples of suggested factors, which could have an influence on the results, are e.g. post-colonial power structures, gender and socio-economic background aspects. What I experienced on an everyday basis was a friendly curiosity regarding my fair (“white”) skin. In general there are not many foreigners in Hyderabad, which made white people appear as exotic both among females and males in the slums. People were always very friendly towards me and shy at the beginning of conversations. The fact that I was a woman asking questions could also have influenced the respondents’ answers during interviews. However, it was not noticed that neither the Indian female student nor myself were significantly treated differently than the male Pollinators during conversations with customers. However, accompanying a female Pollinator could have generated different responses, however this was not a possibility as there were only male Pollinators when the field study was conducted.

Although the Indian students were well educated and represent a higher stratum of society it was not noted that they were treated differently in the communities. It was observed that the Pollinators could easily communicate and interact with people in the communities.
Hence the optimal mix was having an Indian student and a Pollinator in the group when visiting the communities as they represented different social groups and could explain different perspectives of Indian society.

5.4 Participant Observation and Field Notes
Historically, case study and participant research stems from ethnographic research where the researcher observes participants in their natural environment and gathers data over a period of time in order gain understandings of the interplay in the community (Mack et al, 2005). Mack (et al. 2005) provides three benefits with the participant observation technique. Firstly, it is useful for gaining insights of the physical, social, cultural and economic contexts in which participants live: including relationships among and between people, contexts, behaviours and activities. Secondly, the technique familiarizes the researcher with the cultural milieu and enables her to develop a nuanced understanding of the context, which can only come from personal experience and interactions with the interviewees. Thirdly, it helps to uncover factors important for the research problem but which might be unknown at the beginning of the study. Figure 8 (see Appendix A.1) was used as a guideline for knowing what could be relevant to observe during participant observation.

It is beneficial to use participant observation to develop positive relationships among team, key informants and gatekeepers (Mack et al, 2005). Key informants are: “local individuals who can directly provide important information about the community and thus help the researcher more quickly understand the study population and cultural environment” (Mack et al, 2005, p. 20). Developing a good working environment within the team, the translators and the Pollinators was crucial for gathering empirical data as it was easier to ask questions and discuss matters openly in a more relaxed atmosphere. An essential part of the Indian students’ role was to translate conversations between Telugu to English in the communities. The Indian translator functioned as a key informant, helping to describe connection between phenomena that might not be obvious to an outsider. Meanwhile the Pollinator could be described as a gatekeeper, being able to directly provide important information about the community and thus help the researcher to more quickly understand the community and the cultural environment. A benefit was to alternate between different Pollinators as it increased the range of participants and different communities to be observed. Two observational approaches were used depending on the social situation encountered: either by listening and observing during conversations, or by being more interactive in conversations.

The observations were recorded in a collection of field notes which is ”a written account of what the researcher hears, sees, experience, and thinks in the course of collecting and reflecting on the data in a qualitative study” (Bogdan & Biklen, 1982, p.107-108). The fieldwork notes were of both descriptive and reflective character due to both depicts the context, but also to share my reflections on observations and interactions made with the Pollinators and the communities.
5.5 Interpreters and Language

Lindeborg (2012, p. 72) highlights that: “translation is never a straightforward process, since languages are constructed differently as well as words and expressions having different meanings and cultural connotations”. The Pollinators translated from their first language Telugu to English and information might have been lost in the translation process. In these situations the Indian student could assist and detect if a question was not fully understood or detect misunderstandings. Repeating the same question on a different occasion was an alternative way of getting around this issue if the Indian student was not present. Being attended by a professional translator would probably have been advantageous, however within the scope of the study it was considered enough being attended by laypersons.

Apart from adding social and cultural context to the translated information, the translators’ perspectives and personal views were also valued in discussions. This way of including the translators in the research process is emphasized by Edwards (1998) who suggests that translators should be treated as key informants. Liamputtong (2010) also highlights that this enables a dialogue between different perspectives and that information and cultural dimensions may be lost. It is important to bear in mind that the translated information is coloured by the interpreter's perception and that interpreter’s ‘assumption, feelings and values’ often are unconsciously included in the translations process Crang and Cook (2007, p.25).

5.6 The Interviews

In order to investigate the Pollinator network and the social and cultural values embedded in the system exchange, interviewees from the different parts were interviewed: including Pollinate Energy staff, participants from the fellowship programs, Pollinators, worker bees and customers. The selection process was based on the so-called snowball method, where interviewees are found through a key informant (Denscombe, 2009). This method was advantages as it made it possible to find interviewees and establish trust within a short timeframe. The Skype interview selection process was entirely based on this approach, where the key informant recommended previous fellows who had shown an interest in an interview. A disadvantage with this method is that the contact might suggest interviewees similar to themselves, risking the sample to be homogenous. However, as it turned out to be a diverse sample of fellows, both regarding gender, social and cultural background, this was not perceived as a weakness. The snowball method was useful in the communities, where existing customers were approached for repayments. It could take 2-3 visits before trust was established in some communities, thus making it easier to interview established customers. Both male and female customers living in electrified and un-electrified communities were interviewed.

5.6.1 The Interview Techniques

Different interview techniques and formats were applied depending on the type of respondent and interview. A semi-structured format was applied for Skype interviews and sit-down interviews, while unstructured interviews were also conducted throughout the research process with Pollinate Energy staff, fellows, customers and Pollinators. Backman (2008) emphasizes the
importance of avoiding leading questions and to ask open-ended questions to encourage the respondents to give elaborated answers, which was applied in all interviews.

5.6.2 Skype interviews
Initial Skype interviews were conducted with volunteers from previous fellowship programs in Bangalore, where the majority had participated in the Bangalore program in December 2014. A thematically semi-structured format was applied as it offers flexibility; questions do not need to follow a strict order and allows room for follow-up questions (Backman, 2008). The purpose was to develop an initial understanding of the context Pollinate Energy operates in and to identify what social and cultural barriers the fellows experienced while working in the field with the Pollinators and customers. Sullivan (2012, p.54) suggests that: “Skype interviews have the potential to mirror face-to-face interactions for those that are geographically dispersed.” Although Skype might be disadvantages in formal settings, it was experienced as an effective interviewing technique during interviews with the fellows as it followed an outline, but also allowed the informants to bring up issues they found important.

5.6.3 Go-alongs and Sit-Down Interviews
The Pollinators were interviewed during so called go-along interviews, following them through their workday in the communities. During a go-along interview, the researcher joins the interviewee as they go about their daily routines, asking questions along the way (Evans & Jones, 2011). By asking questions, listening and observing, the researcher can actively explore the subjects’ interactions with their physical and social environment how the role of place influences their everyday experiences (Kusenbach, 2003). (Carpiano, 2009, p.267) continues that the go-along approach is a more inclusive process, as “the respondent becomes more of a participant in the interview than simply a subject who is being interviewed”. This technique was found to be a more effective interviewing approach for learning about the Pollinators working environments, than what could be capture during structured interviews. By joining the Pollinators to the communities on a daily basis, it provided exposure to social and everyday life in the communities. Benefits highlighted by Carpiano (2009) and experienced in the communities were that the go-along helped to contextualize the interview comments but also offered opportunities to meet a wider range of residents and networks, increasing the likelihood of a more heterogeneous sample.
Sit down interviews were conducted with customers at their homes when either making sales or collecting repayments in the communities. This opportunity lent itself well for a traditional sit down interview, where the researcher sits down with the informants. The format of the interview would follow either a thematic semi-structured interview or could occasionally be of a more unstructured format depending on the situation. Revisiting customers for collecting repayments from customers, also gave the opportunity to ask follow up questions, and see recurring patterns at the same time as trust was being established with the customers. The community visits also enabled the opportunity to ask the Pollinators and the Indian students spontaneous questions about the city, local customer and other observations made when travelling between the slums around the city. These interviews were specifically valuable in order to learn about the Indian context such as local customs and the general way of life but also to understand the development processes taking place in the city.

5.6.4 Unstructured Interviews
By working and living together with fellows and the organisation staff, the topic of the communities was always present making informal conversations and observations important in collecting the fellows’ thoughts, experiences and impressions of the communities and the Pollinators. Hence, unstructured interviews became another important interviewing technique, which served several purposes. In an unstructured the interview is guided by the interviewer’s focus the interviewer, but is continuously built on the respondents answers (Cohen and Crabtree, 2006). Key informants are selected “for their knowledge and role in a setting and their willingness and ability to serve as translators, teachers, mentors and/or commentators for the researcher” (DiCicco-Bloom & Crabtree, 2006, p.315) where the researcher takes down short notes while observing and asking questions. According to Cohen and Crabtree (2006; 2010) unstructured interviews is a useful method at the initial stage when the researcher is developing an understanding of a new culture and setting, but also allowing opportunity to further revise an already gained understanding from inputs by respondents. At the beginning of the fellowship, the unstructured interviews played an important part in developing an understanding of the communities, the organizational model but also of the Indian context. However as time passed, the unstructured interviews became more targeted on specific ideas and re-occurring patterns. The unstructured interviews with the fellows and the city co-founders were found helpful for formulating the interview guides for the Pollinators and the customers, as it developed an understanding of relevant and interesting questions.

6. BACKGROUND

This chapter provides a description of the geographical locations where Pollinate Energy operates together with a more thorough description of the model Pollinate model and the work, products and programs of the organisation.
6.1 Bangalore and Hyderabad

Pollinate Energy began its operations in year 2012, in Bangalore in which is the capital in the south-western Indian state of Karnataka. Bangalore is known as the ‘Silicon Valley of India’ because of its role as the nation’s leading IT exporter, attracting many foreign companies to either outsource services or move operations to the city (Canton, 2012). Bangalore faces the same urbanisation problems seen in many fast-growing cities in developing countries: escalating social inequality, proliferation of slum settlements, public health crisis due to severe water shortage and sewage problems in poor neighbourhoods to list a few issues (Goldman, 2011, p.559).

At the beginning of year 2014 Pollinate Energy set up operations in Hyderabad, which is the capital of the two southern Indian states Telangana and Andhra Pradesh (Britannica, 2016). During the last decade, Hyderabad has become a global centre of information technology, commonly referred to as Cyberabad (Wakode, 2012). The development of HITEC City, a township with extensive technological infrastructure, has encouraged global and Indian companies to set up their operations in the city. Like Bangalore, Hyderabad is growing at a rapid pace. Construction sites displaying structures of apartment buildings taking shape and advertisements for new apartment complexes are found all over the city. Much of the visual changes taking place in Hyderabad are due to the continued growth in the IT sector attracting foreign investment (UPRS, 2015). Similarly to Bangalore, the city is characterized by a significant presence of the slum populations, which are growing in numbers (UPRS, n.d). In year 2012, a report submitted to the World Bank by the Greater Hyderabad Municipal Corporation (GHMC) reported that the number of slums in the city was estimated to be a number of 1,476 slums (The Times of India, 2012).

6.2 The Organisation Pollinate Energy

Pollinate Energy is registered as an Australian charity, which wholly owns Pollinate Energy India, a non-for-profit commercial entity registered in India (Pollinate Energy, 2014). The Australian branch focuses on promotion and fundraising while the Indian branch manages operations in India including recruitment and training of its local entrepreneurs or Pollinators that are micro-franchisees of Pollinate Energy India (ibid). After the initial city setup, which is mostly funded through donations and fundraising, the goal is that each city will be financially
sustainable from the revenue from the margins applied to products, which are bought at discounted wholesale rates from suppliers (ibid).

The Pollinators are largely recruited through partnerships with local not-for-profit and microfinance organisations (Pollinate Energy, 2014) and are allocated a geographical region in the city. Customers are offered weekly payment instalments and the sale includes servicing of the product and a one-year warranty. In the communities, the Pollinators are assisted by so-called worker bees, which are typically a customer or authority figure residing in the community, with whom the Pollinator has developed a good relationship. Thus the worker bee helps the Pollinator to penetrate their market in the communities.

Once recruited, the Pollinators undergo a month of intensive training through the fellowship program. The Pollinator is placed in a team with international and Indian fellows who coach and teach the Pollinator the necessary skills to set up and operate their own business. A number of these programs have been organized since the start in Bangalore year 2012. The programs involve mapping new communities, conducting market research and trialling new products etc. The fellows support the Pollinators throughout the program, helping them to develop necessary skills and confidence in order to independently run the micro-businesses. This collaboration is an interesting component of the model, which has potential to create added value and less tangible effects than what can be measured in a number of sold products.

Pollinate Energy's notable success is the solar light products which serves multiple benefits improving life quality in the slums i.e. substituting kerosene fuel oil lamps in the communities (March, 2015; Ali, 2015). Portable cook stoves have also been incorporated into the organisation’s product range to further improve the negative health effects of indoor pollution and additional products such as water filters, menstrual cups and tablets have been investigated through market research (Pollinate Energy, 2014). Before new products are launched, they undergo trialling test where established customers are offered the chance to trial products for a week and give feedback on the products.

Figure 7. The graph illustrates a model of the solar light set (Greenlight Planet, 2015).
6.2.1 Similar Models

The Pollinator concept can be considered an example of how to organize and propagate social entrepreneurship involving product distribution. Similar concepts and models to the Pollinator can be found around India and worldwide. A social enterprise called SunnyMoney, operates in east-Africa with an almost identical model as the Pollinator model. Instead the organisation targets rural areas and distributes products through local teachers acting agents (Thrope, 2013). School campaigns are used as catalysts to start a market and build trust by offering entry solar lights at a promotional price (SunnyMoney, n.d). The organisation has a close partnership with Pollinate Energy and supplies the same product range of solar lights, highlighting the same motives and benefits of purchasing the lights: providing families with clean, safe energy, minimizing the negative health effects and high financial cost of using kerosene lights (Solaraid, n.d).

The structure of using teachers as distribution agents is influenced by the fact there exits mistrust towards outsiders and initial investment costs in African rural communities, while there is a strong desire to invest in education and trust in the educational network (Thorpe, 2013). Thus, appointing teachers as agents to promote the benefits of the solar light to students overcomes barriers of trust and enables distribution of solar light over vast areas without having to visit the villages separately, which are often remotely located from each other. (ibid).

7. EMPIRICAL MATERIAL

In this chapter the key findings from the Skype interview with previous fellows in Bangalore are presented, which is followed by the findings from interviews and observational data from the fieldwork in Hyderabad.

7.1 The Skype Interviews: Experiences from Bangalore

Some of the key findings from the Skype interviews regarded the importance of trust, products difficulties, and miss-communication. A similar observation of the importance of regional identity in the communities had also been made in Bangalore. During the interviews many of the fellows echoed the importance of establishing trust and accountability with the customers. A key finding was that an already established relationship between a customer and a Pollinator would increase the likelihood of the customer considering buying a water filter. It was noticed that the relationship was often the main reason for the sale, and that it was not the actual function of the product that was the convincing factor. The importance of trust and regular presence of the Pollinators were also echoed in the impact assessment conducted in May the same year. In the assessment it was reported that customers had good relationships with the Pollinators and observational data showed that the Pollinators seemed to be known and liked in their communities (Pollinate Energy, 2015c). Customers expressed positive feedback on the regular physical visits in communities and it would often take a physical to raise and resolve product related issues (Pollinate Energy, 2015c).
There were several interesting learnings gained from the trials of the new water filter product during the program. The fellows experienced great difficulties when trying to convince customers of the benefits of the water filter product, as customers did not see any need for the water filters. Another issue was that the Pollinators did not see the need for the product either, which made it hard to convince them of selling the product. Hygiene was also found to be a taboo topic, making it more difficult to start an open conversation to customers about their daily routines and emphasize the need and importance of hand washing. Water was not perceived to be dirty mostly due to a lack of understanding of the properties of bacteria and the harmful health effects of contaminated water. Firstly, illiteracy and lack of education made it difficult to explain and convince customers of the importance of the product. It was difficult to explain the connection between dirty water and becoming sick, as it was hard to convince customers of the existence of bacteria when it is not visible to the naked eye. Hence, there was a miss-match between the functionality of the product and perceived value of the product. Pamphlets with cartoons, symbols and flowcharts following a logical order from left to right were used to explain how contaminated water causes diseases. However, this way of conveying the message was not successful, as neither the customers nor some of the Pollinators understood the significance of the symbols. Pictures rather than cartoons were noted as more effective in communicating hygiene education, and pictures of adults were more effective as it made the topic seem more important than when picturing children.

Many of the fellows pointed out that the water filter product would need a different business and selling approach than the solar lights. The solar light has an immediate visual effect, lightening up shops and homes in darkness, while it is harder to convince a customer of the long-term effects of the water filters. Disadvantages with the water filter product were that it was slow and needed some maintenance and needed routines and knowledge to operate it in a proper manner. It was noted that the steel product was perceived to have a higher value than plastic, which was considered as a “cheap” material. Moreover, the product was quite big which would make the logistics of transporting the product to the customers more difficult for the Pollinators. It was also raised that incentives would also be required for motivating the Pollinators to sell water filters, as they currently made more money on selling solar lights than water filters. What was very popular and well received in the communities however, was a laminated family photo certificate the families that bought water filters received. The picture would be taken family together standing together with international fellows and would be given to the family.

Fellows from previous programs in Bangalore also experienced the challenges of trying to discuss hygiene, when trying to promote menstrual cups in communities in Bangalore, which was again more difficult than it sounds even though the product was simple to use (UNSW, 2015). Some of the suggestions provided by the fellows were: involving more local staff in the organisation, developing a smart educational program for the water filter product, which could be developed with a partnering organisation.
7.2 The Field Study in Hyderabad

7.2.1 The Slums

The slums are found as pockets all around the city and act as a gateway into the city. Typically a slum is created by an individual or a family setting up temporary housing and is then followed by relatives from the village moving in or putting up a new tent next door.

![Image of several tents in a slum in Hyderabad.](image)

*Figure 8. The picture displays several tents in a slum in Hyderabad.*

The characteristics of the slums vary, often depending on location of the slum but also by the occupation of the slum dwellers. Many communities are found close to newly or established hotels, apartment blocks and ongoing construction projects as they offer work opportunities in construction or domestic related services such as cleaning or cooking. Hence many find employment in construction sites and typically build a temporary home next to their workplace. Other common occupations are driving rickshaws or recycling work. The decision of settling down close to the workplace is probably not purely out of convenience, but because the lack of infrastructure in the city. Some people have motorbikes parked outside their tents, as a motorbike is often the smoothest and easiest way to get around in the city.

6.2.2 Access to Electricity

In Bangalore the majority of communities are un-electrified where experience shows that solar lights sold in the communities have been brought to the native villages. In Hyderabad about 30 % of the communities are un-electrified (Informant 1, 2015). Many of the electrified and partially electrified communities in Hyderabad have access to light (which is often a single light bulb dangling from a piece of wire in the ceiling), fans and television. Access to electricity or water is organized through personal arrangements with e.g. neighbours in adjacent apartment buildings, where some communities split the electricity bill amongst the number of tents to lower the price. These agreements can be expensive and many use kerosene as fuel for lighting and cooking in the community, which endanger families’ health as they on a daily basis inhale the thick and harmful smoke emanating from the burning kerosene. Other illegal alternatives to access electricity are attaching hooks to streetlights and power stations. An issue for these
communities is the frequent number of power cuts, often occurring on a daily basis. Hence some families in electrified communities have bought solar lights as a backup during power cuts. The majority of families have at least one mobile or even a cheap smart phone and many are especially interested in the solar light’s double phone charging feature. Additional benefits raised by customers were being able to spot insects and snakes in the tents and making the children feel safer at night.

In communities without electricity the solar light has an immediate visual effects lighting up tents after dark. One woman in a community expressed her happiness with the solar light product stating that: “You’ve brought light to our community, now we don’t need electricity”. It was further noted that people in the un-electrified communities expressed requests for “solar fans” and “solar TVs”: fans being a means for getting rid of mosquitos and handling the heat.

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6.2.3 The People in the Slums

The households typically consist of 5-6 people and can consist of 3 generations. The neighbours are either extended family or friends from the village or home district, referred to as the ‘natives’. Many return to the home villages regularly either on a monthly or yearly basis. Thus, it was noted that there were strong ties back to the home village and that this regional belonging was part of the communities’ identity. The majority of the slum dwellers in Hyderabad are Hindus, which is similar to Bangalore where 83 % of 381 surveyed people in 53 slum communities were Hindu (Pollinate Energy, 2015c).

Many of the women are married when they are still teenagers 17-19 and thus many women who were 25-26 years old already had 2 children. Most women in the communities work: either with cleaning, housekeeping or separating material for recycling or carrying material such as bricks and sand for construction projects. The average salary is 10,000 rupees per month and the minimum wage is approximately 200 rupees (approximately 3 USD) for 8 hours work a day (Informant 2, 2015). The income per household will vary between 5,000-20,000 rupees per month. Although some are paid on a monthly basis, most people in the communities are paid on Sundays. It was noted that asking about a family’s income was not considered as a taboo topic.

Families often live in confined spaces and tents are closely placed next to each other. Toilets and showers are often placed either in the middle or off the edge of the slum, consisting of a fabric of plastic sheet wrapped around 3-4 sticks in the ground. Tap water could be collected in big plastic water containers from neighbouring apartments, which on average took two hours.
Many families socialize outside the tents both during daytime and in the evenings, chatting and doing the chores together, such as cleaning and cooking. It was common to see small separate compartments for cooking built outside tents, where a handmade clay cook stove was sheltered from the wind by a simple wood and tarpaulin construction. Food is bought from street markets or small food stalls selling candies and cigarettes, tea and occasionally hot meals, which creates a natural meeting place in the communities.

The people in the communities were welcoming and it was easy to start conversations about where people came from, their native place, income, kerosene usage etc. Girls were observed sitting outside the tents studying maths and physics in the afternoons. However, while some children in the communities go to school, others do not. This often depends on the parents’ perception of the importance as well as their own level of education (Informant 2, 2015). Other influencing factors influencing whether the children go to school or not are income level, access to nearest school, strata of society etc. (Informant 2, 2015). During the community visits there were no signs of violence or disturbances within the communities. A suggested explanation is the fact that the slums consist of network of families and friends, wanting to provide a safe and stable environment for their family.

6.2.4 The Pollinator’s Role

The Pollinators visit the communities from late afternoon till late evenings when people have arrived home from work and spend all Sunday in the communities, as it is the weekly payday. The core of the business is the relationships the Pollinator develops with its customers and worker bees and making the first sale in a new community is often the most challenging task. To convince customers of the product, a one-week-trial is often given to interested customers in exchange for a deposit. Although the spontaneous reaction is that the light is expensive, most families wanted to buy the light after trialling the product or seeing their neighbour being satisfied with the product. In most cases, once a customer had bought and expressed satisfaction with the product, the neighbours would be interested in buying the product during the next visit.

When recruiting Pollinators, applicants representing the middle or lower classes are targeted, as they are typically more inclined towards helping the poor (Informant 2, 2015). Apart from speaking the local language/s spoken in the communities the Pollinators also have similar class background as the people in the communities. At the time, there were currently only male Pollinators in Hyderabad. Some women had shown interest but disapproval of parents had refrained them from accepting the job as the safety of working in the communities was questioned. In Bangalore however, 7 of the 17 Pollinators were women (Pollinate Energy report,
The organisation experienced that after modifying the organisations recruitment material for a female audience, the number of female applicants increased (Informant 3, 2015). Another finding was that women without any previous work experience and also Muslim women were excellent at performing the job (Informant 3, 2015).

The Pollinator role offers a chance for social growth as the Pollinators are trained in various soft skills necessary for them to build their business. The Pollinators in Hyderabad were younger than the typical Pollinator in Bangalore. One of the Pollinators lives in a community near the slums Pollinate Energy helps and spends four hours a day in the communities (Jackson, 2015). In an interview with a newspaper he explains: “I am selling a good number of lights... but it takes a lot effort to build the relationship with the people in the communities” (Jackson, 2015) The Pollinator role is his first job, apart from newspapers and providing language tuition to children. Through his Pollinator role, he feels a personal satisfaction from helping the poor but that the employment also brings several benefits: “It has changed my life, yes. I am learning new things... useful for me in my career... but I’m also helping my family financially.” (Jackson, 2015) The everyday interaction with customers and approaching new potential customers develops the Pollinators level of confidence, and the Pollinator expressed he used to be very shy before starting the job (Informant 4, 2015). The international exposure and the set of skills the role offers are attractive benefits. Describing it as a life changing experience, he expressed: “I used to be a frog in a well” (Informant 4, 2015).

6.3 Collaborations During the Programs

Through the international exposure and collaborations taking place through the programs, additional values can be created as Indians and internationals work together coaching the Pollinators. Apart from learnings about western culture, the Indian students (and Pollinators) are exposed to social issues and a part of society, which is not part of their everyday life. Both the Indian and international students were surprised when realizing the numbers and extent of slums in the city and that slums were often found in central locations.

Prejudices and misinformation about the slums were confronted during the visits to the slums. At the beginning of the program one Indian student expressed a notion that people in the communities did not use mobile data. A statement, which was quickly proven wrong during the first visit to the communities where the great majority of people living in the slums have mobile phones and use mobile data. This illustrates the fact that there exists misinformation between different social groups. Another Indian student expressed after some weeks in the communities, that many families needed help with domestic services and that an improved communication between social groups could provide better working opportunities for the poor. Thus highlighting that spreading information about the existing issues could be a step towards increasing the awareness level in higher social groups.
7. ANALYSIS

7.1 Influence of the Local Context Upon the Workings of the Pollinator Model

As previously pointed out by Holloway and Hubbard the perceptions of both possibilities and limitations within a place will affect the relationship between place and people, and the behaviour of individuals. Local conditions play an important role in setting the rules of what can be achieved. In order for an outsider to achieve an impact in the slums, one needs to analyse the slums from a macro and micro perspective. To begin with, a macro perspective can be applied using Agnew’s location definition, describing a place through social and economic processes. The slums are part of the rapid urbanisation process taking place in India, fuelled by foreign investments in life sciences, IT technologies, outsourcing etc. This in turn has accelerated the rapid development of housing and offices in the cities, which has generated an increase in employment opportunities for the poor moving into the cities. This is applicable to Massey’s global sense of place, where the urbanisation process in India is driven by the possibilities enabled by globalization, thus indirectly interlinking the urban slums the elements of the global world. Being able to understand these patterns is helpful as it highlights the conditions and broader issues the slums face such as poor sanitation, employment insecurity and energy poverty. The identified issues will shape the selection of products, which are meant to address the issues the communities are facing. This aspect is useful as it helps to analyse patterns and flows of social relations to and within the communities.

However, it is fair to say that although it is easy to generalize motives for migrating to the city and the characteristics of people in the communities, there will always exist a spectrum of personal motives and personalities, each contributing and adding flavour to the community spirit – whether it is to the community atmosphere or through social relations. This contributes to the specificity of the place, which is shaped by the unique constellation of social relations and influenced by the slum’s location in the city. As it was observed in the fieldwork, the characteristics of the slums varied depending on not only the location of the slum but also on the occupations of the slum dwellers.

Thus it is important, as Holloway and Hubbard emphasizes, that a micro perspective is applied as well in order to correctly understand the needs of the communities through local groundwork. For instance, while poor sanitation and sewage might be perceived as the most critical issues from an outside perspective, the poor might prioritize their issues differently. If any change is to take place, needs and supplies must be met. As the Pollinators learn about the communities’ locale, which is the environment where social relations and daily life take place, the Pollinators come to know the customers through daily interactions. They will learn the customers’ working hours, occupation, salaries etc., which they can report back to the Pollinate headquarters and give updates of the customers’ concerns. Thus, the organisation can select and tailor new living standard-enhancing utility products and services to the customers needs. As every community is defined and constructed by a unique constellation of social relations, the worker bees play functions as key informants in the community, making the Pollinator acquire
knowledge about the social structures within the communities. By understanding the strong relationship to the native village, the Pollinators can emphasize the suitability of the products in rural areas as well. This indicates that the Pollinator model is effective in communities consisting of families and established networks living close to each other as the word of mouth spreads quickly. Although this is a general pattern, the connection to the village might not be as strong in other communities with other demographic characteristics. For instance, implementing the Pollinator model in a community consisting of male construction workers or a community consisting of guest workers living far away from their families might need another approach as their priorities and income levels might be different compared to families.

As the slum networks, atmosphere and identity are influenced by social structures and customs from the home village, the *sense of place* in the communities is strongly connected to the rural villages. The regular visits to the villages also increases the chances of spreading the products to the villages, by reaching out to the rural areas through the slums, which was suggested by statistics from Bangalore. This suggests that it is easier to reach the rural areas through trusted family members, than applying the Pollinator model to a rural setting. Firstly, the caste system is supposedly stronger in the rural areas where old social structures and ways are kept intact, while the regional identity becomes more important when moving to the city where the conditions are different. From this follows that it would probably be more difficult for the Pollinators to approach customers in the villages as the Pollinator could be considered an outsider and the Pollinator’s caste and own social belonging might be of greater importance. Secondly, a practical issue with targeting the rural areas would be that the Pollinator would have to cross long distances in order to reach isolated villages, which would be time consuming, require a vehicle and involve transportation costs. Comparing the Pollinator model to the similar model implemented by SunnyMoney in Africa, targeting the rural part of the country, local teachers are used as distributors to minimize the necessity of travelling long distances.

It was highlighted from the interviews that Pollinators with a similar background are targeted, as they are more likely to identify themselves with the communities in the slums, which becomes an advantage and a stronger incentive to help than would be usual for candidates from higher social classes. Although there was no female Pollinator at the time in Hyderabad, half of the Pollinators in Bangalore were female. Moreover, Muslim women were proved to be highly successful as Pollinators. This suggests that the Pollinators social economic background and ability to speak the local language is more important than gender and caste when operating in an urban environment.

Although many slums around the world are constructed in a similar fashion as in India, there are of course differences to take into account. One important factor is the level of safety in the communities. So far the Indian Pollinator can easily enter and approach customers in communities and travel undisturbed between and within communities. The slum dwellers are friendly and answers questions about their families, income and background and the attitude towards door-to-door salespeople is different from Western culture. This makes it easy for the Pollinators and the organisation to conduct market surveys. Additionally, no violence or criminal
activities were noticed or heard of in the communities. The fact that the communities consist of families makes it a calm and safe working environment for the Pollinators. However, the fact that the Pollinator handles larger sums of cash when collecting repayments would need to be reconsidered if the model was implemented in slums with high criminal rates, as it could potentially expose the Pollinator for greater risks. For instance, if the model were applied in slums struggling with high crime rates, it would probably be more important that the Pollinator was known in the slum, as it is more difficult to establish trust and make sales being an outsider. However, even if the Pollinator was well known within the community, it might still involve risks of being robbed. This would put more requirements on the Pollinator’s role and potential, limiting the selection of suitable applicants and also require more assistance from the organisation.

7.2 Selecting Meaningful Products
As Holloway and Hubbard highlights, understanding the local context is essential in order to learn what people perceive as issues in their everyday life. This together with the notion that people’s understanding of the set of rules and physical characteristic of a place influences individuals’ behaviour in a specific context, are important insights in order to choose meaningful products as it is easy to make the mistake of defining the issue and solution from an outside perspective. A fundamental understanding of Wilk’s social-time grid is that what makes sense in one culture may not be perceived as rational by another. The observation that TVs and mobile phones seemed to be prioritized over clean water in the communities might strike as irrational for an outsider. The same might apply to the observation that the family photos were more popular than the water filter products. This shows how decision-making and prioritization is connected to local context and culture.

The solar light has an immediate visual impact, which is useful in the future and meaningful for the whole household. Although the effects of the water filter are meaningful, they are long-term and not as easy to prove to the customer. Important traits with both the solar light and the family photo are that they entail status: the neighbours can literally see the effects of the light and the family photo together with Western foreigners was perceived as exotic and thus valuable in itself. Meanwhile, the effects of the water filter were for several reasons not as obvious to the customer and did not involve the same type of status benefits, making it a more difficult sale. Lack of education contributes to the fact that the benefits of the water filter product are not as highly valued as they ought to be. Another example of cultural miscommunication was the fact that the fellows struggled with conveying messages of the importance of the water filter to customers through cartoons and flowcharts. This shows that a risk for misunderstandings can occur when cultures collide. As this way of communication was uncommon in the communities, the message was confusing and a discovery was that pictures of children were seen as of less importance than pictures of adults.

A key finding in Bangalore was that customers who had already bought a solar light were more likely to buy a water filter, mainly because of the relationship with the Pollinator and not
because they saw a need of using the product. Analysing this from the social-time grid, the relationship is a stronger contributing factor for the decision of purchasing the product than the immediate self-interest of product use. This knowledge can be implemented when formulating strategies for products. The solar light can be used to increase the credibility of the brand and introduce customers to new products when trust has been established between the customer and the Pollinator. As the effects are immediate and visual, it is easier to establish trust and convince the customers of the benefits of the products.

This highlights the importance of continuously trialling products and receiving product feedback from customers. By investigating the living conditions and living environment in the slums through market research, Pollinate Energy tries to select living standard enhancing utility products that they see a market for in the slums: whether it targets access to electricity, purified drinking water or sanitation. Involving local staff in the product selection can smoothen the process, as they supposedly have a better understanding of local preferences and needs.

### 7.3 Potential Spin-Off Effects

Apart from the fact that knowing the local language and local know-how is a prerequisite for the Pollinator model, there are several learnings that point towards a need for constantly challenging underlying assumptions and prejudice. This is not only because Pollinate Energy is a foreign-based organisation operating in a foreign country; prejudice also exists between social groups within Indian society, which needs to be challenged. Examples of assumptions proven wrong concerned the suitability of Muslim women as Pollinators (which indeed were proven to be suitable in Bangalore) and the incorrect assumption of low usage of data services in mobile telephone networks in the communities. These insights were discovered through the programs where different assumptions collided and become visible - a result of the collaboration between international and local Indians. The programs can potentially generate so-called spin-off effects, which could contribute to future social development in India but which are less tangible than e.g. the volumes of sold solar light units. One observation was that the interaction between Indians from different social backgrounds creates opportunities for Indians to work together on equal footing, which is otherwise rare in other circumstances. Viewing this from an intersectionality perspective, the programs provide a unique opportunity for different categories of social groups to come together and work towards as a shared goal. This can potentially be a catalyst for social change. For instance, as the international and Indian students work in teams with the Pollinators it is an opportunity to bridge building and dialogue between international and Indians, but also between different social groups and strata of Indian society. Through this experience, prejudice and barriers existing between the groups can be transcended as ideas, insights and experiences are shared between agents coming from different social and cultural backgrounds. This is turn can help decrease the gap between different Indian social groups and help reduce prejudice and misinformation between social groups. The potential of this teamwork and exposure can have secondary and probably long lasting spin-off effects.
The international students help increase awareness and raise funds abroad, while also attracting attention to the organisation and the brand in the communities. An internship at a foreign organisation and working with international students attracts the interest of educated Indian students, which are exposed to Western culture and mindsets. However, they are also confronted with the challenges and harsh reality the lower classes of society face in their own country. The Pollinators are equally exposed to foreign culture, but also develop relationships with Indians from higher social backgrounds. Thus the programs create a meeting place where people from different social divisions meet and get a chance to work together as equals. This is important as it can give the Pollinators higher aspirations, boosting their confidence, which might lead to higher achievements later in life. The Pollinator role provides social value and status, as the Pollinators come to work in the headquarters, which in Hyderabad was located in an affluent area. Apart from being taught important skills of operating a business, they also develop the confidence of communicating with customers and the independence of operating their business and planning their workdays. The quote: “I used to be a frog in a well”, expressed by one of the Pollinators, describes how the Pollinator role can widen perspectives. Thus the programs and the collaborations made through the programs are, de facto an important positive component in the Pollinator model. This can in the long-term lead to multi faceted positive social change and apart from bringing sustainable solar light to the slums but also be part of a wider enhanced social development strategy.
8. CONCLUSIONS

A. If the Pollinator model is transferred to other countries and locations, underlying assumptions of the model would need to be re-calibrated with respect to fundamental prerequisites. Besides the intricate intersectional social aspects, assumed fundamental practicalities must also be investigated. For instance, the model might require additional adaptations to make it feasible in countries and cities with e.g. higher crime rates where a Pollinator might risk being robbed. Furthermore, the infrastructure system and the distances the Pollinator is expected to cover will have to be taken into account.

B. When launching the Pollinators in new cities, products can be unexpectedly context dependent and need to be trialled in pilot project in the communities. Although seemingly easy and purposeful products are supplied, it is not certain that the customers see the need or benefits of changing their old ways. Moreover, products with immediate effects and benefits like the solar light can be used to build an initial relationship with customers before adding products which are more influenced by the local context and requires additional education, like the water filter product.

C. An essential component of the Pollinator model is having staff that can communicate in the local languages but also comfortably move between different social strata of society. An observed important aspect of the Pollinator model is the volunteering program where the egalitarian collaboration between Indians from different social divisions and internationals take place. This could potentially generate long-term positive spin-off effects in the form of interpersonal bridging, which could facilitate social mobility and entrepreneurship. Increased and continued awareness of the social issues of the community among the Indian participants may encourage social mobility and interaction that is most likely beneficial for India’s development and its urban poor.
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Age: 20-25.

Guest lecture at University of New South Wales, 2014
Interview with fellows who participated in the fellowship program in Bangalore in 2013 during a guest lecture in the course *Sustainability in Developing Countries.*
APPENDIX

A1. Skype Interview Guide

1. Interview guide with the previous volunteers

1. What is your name?
2. Which Fellowship program did you participate in?
3. What did you do during the fellowship program?
4. How did you establish trust?
5. What was the main problem with selling water filters?
6. Do you have any suggestions of improvements?
7. Is there anything you would like to add?
A2. Participant Observation

<table>
<thead>
<tr>
<th>Category</th>
<th>Includes</th>
<th>Researchers should note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clothing, age, gender, physical appearance</td>
<td>Anything that might indicate membership in groups or in sub-populations of interest to the study, such as profession, social status, socioeconomic class, religion, or ethnicity</td>
</tr>
<tr>
<td>Verbal behavior and interactions</td>
<td>Who speaks to whom and for how long; who initiates interaction; languages or dialects spoken; tone of voice</td>
<td>Gender, age, ethnicity, and profession of speakers; dynamics of interaction</td>
</tr>
<tr>
<td>Physical behavior and gestures</td>
<td>What people do, who does what, who interacts with whom, who is not interacting</td>
<td>How people use their bodies and voices to communicate different emotions; what individuals’ behaviors indicate about their feelings toward one another, their social rank, or their profession</td>
</tr>
<tr>
<td>Personal space</td>
<td>How close people stand to one another</td>
<td>What individuals’ preferences concerning personal space suggest about their relationships</td>
</tr>
<tr>
<td>Human traffic</td>
<td>People who enter, leave, and spend time at the observation site</td>
<td>Where people enter and exit; how long they stay; who they are (ethnicity, age, gender); whether they are alone or accompanied; number of people</td>
</tr>
<tr>
<td>People who stand out</td>
<td>Identification of people who receive a lot of attention from others</td>
<td>The characteristics of these individuals; what differentiates them from others; whether people consult them or they approach other people; whether they seem to be strangers or well known by others present</td>
</tr>
</tbody>
</table>

Figure 11. The table presents suggestions of different categories, which can be used when applying participant observation. The table was used as a guideline when conducting participant observations in the communities. (Mack, 2005, p.20).
A3. The Pollinate Energy Model

Figure 12. Illustration of Pollinate Energy’s business model displaying the different agents in the model.